

Infineon Gate Driver Application Matrix

Product Management
March 2021



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Manual & Technology, Configuration and Features

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Application Areas

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Recommended Products

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Products At A Glance

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Support Material

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1 Manual & Technology, Configuration and Features

2 Application Areas

3 Recommended Products

4 Products At A Glance

5 Support Material

Home Appliance

Go to the Air Conditioner (Residential) Gate Driver Recommendation



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Functional Unit	Indoor PFC	Outdoor PFC
Voltage Range	400...600 V	
Power Range	<1.5 kW	<3 kW
Switch Types	MOSFET	MOSFET

Product 1 is the first recommended part

Product 1	IRS4427	IRS4427
Description	25 V Dual Low-Side Gate Driver IC	25 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V
Package	DSO-8, DIP-8	DSO-8, DIP-8
Features	Vout 6-20 V	Vout 6-20 V
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IRS4426, IRS4428, IRS44262	Family: IRS4426, IRS4428, IRS44262

Product 2 is the second recommended part

Product 2	IRS44273L	IRS44273L
Description	25 V Single Low-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20V
Package	SOT23-5	SOT23-5
Features	UVLO	UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IR44273L, IR44272L	Family: IR44273L, IR44272L

Gate Driver Application Matrix Manual

Example 2 (Page 2 of 2)

Functional Unit	Indoor PFC	Outdoor PFC
Voltage Range	400...600 V	
Power Range	<1.5 kW	<3 kW
Switch Types	MOSFET	MOSFET
Product 1	IRS4427	IRS4427
Description	25 V Dual Low-Side Gate Driver IC	25 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V
Package	DSO-8, DIP-8	DSO-8, DIP-8
Features	Vout 6-20 V	Vout 6-20 V
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IRS4426 , IRS4428 , IRS44262	Family: IRS4426 , IRS4428 , IRS44262
Product 2	IRS44273L	IRS44273L
Description	25 V Single Low-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V
Package	SOT23-5	SOT23-5
Features	UVLO	UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IR44273L , IR44272L	Family: IR44273L , IR44272L
Product 3	2EDN8524F	2EDN8524F
Description	20 V Dual Low-Side Gate Driver IC	20 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V
Package	DSO-8	DSO-8
Features	EN, UVLO	EN, UVLO
Switch Type	GaN, IGBT, MOSFET	GaN, IGBT, MOSFET
Similar Products	Family: 2EDN	Family: 2EDN
Product 4	1EDN8511B	1EDN8511B
Description	20 V Single Low-Side Gate Driver IC	20 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V
Package	SOT23-6	SOT23-6
Features	EN, SEP-OUT, UVLO	EN, SEP-OUT, UVLO
Switch Type	GaN, IGBT, MOSFET	GaN, IGBT, MOSFET
Similar Products	Family: 1EDN	Family: 1EDN

Go to the Product Web Page

Go to the Product PPT Page

Go to the similar products Web Page/Datasheet

New Product

IRS4427

Overview
Parameters
Claims
Documents
Order
Videos
Quality
Support

Descriptions

Dual Low Side Driver IC with typical 2.3 A source and 3.3 A sink currents in 8 Lead PDIP package for IGBTs and MOSFETs. Also available in 8 Lead SOIC.

Summary of Features:

- Gate drive supply range from 6 V to 20 V
- CMOS Schmitt trigger inputs
- Matched propagation delay for both channels
- Outputs in phase with inputs (IRS4427)
- OutputA out of phase with InputA and outputB in phase with InputB (IRS4428S)
- Outputs out of phase with inputs (IRS4426S)



IRS4428, IRS4427, IRS4426(2) at a glance

Dual channel low side drivers

Key Features

- 2.3 A / 3.3 A typical source/sink current
- Gate drive supply range (IRS4426, IRS4427)
 - 6 V to 20 V (IRS4426, IRS4427)
 - 16 V to 20 V (IRS44262)
- 3.3 V logic compatible
- Typical propagation delay 10 ns (IRS44262)
- Matched gate drivers
- Matched propagation delay for both channels
- Outputs in phase with inputs (IRS4427)
- Outputs out of phase with inputs (IRS4426(2))

Sample Schematic

Value Proposition

- Robust IC with increased device reliability
- Various industry standard pin-out configurations enables easy, straight forward design for fast time to market

Typical Applications

International IOR Rectifier

February 28, 2011
Discontinued No - 17461

IRS4426/IRS4427/IRS4428

DUAL LOW SIDE DRIVER

Features

- Gate drive supply range from 6 V to 20 V
- CMOS Schmitt triggered inputs
- 3.3V and 5V logic compatible
- Two independent gate drivers
- Matched propagation delay for both channels
- Outputs in phase with inputs
- Leadfree, RoHS compliant

Product Summary

Topology	General Driver
Vcc	6V - 20V
I _S & I _R (typical)	2.3A & 3.3A
I _S & I _R (typical)	50ms & 50ms

Typical Applications

- General Purpose Dual Low Side Driver
- DC-DC converters

Package Type

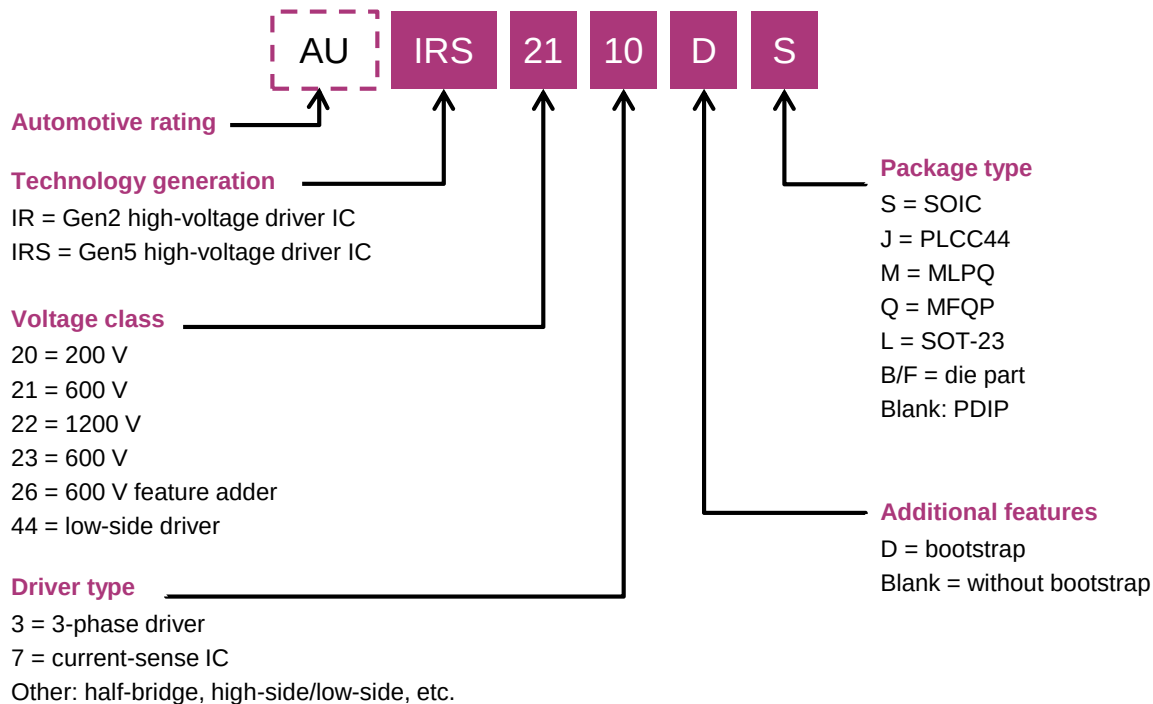
Abbreviation	Technology
CT	Coreless Transformer isolated driver IC technology
JI	Level-shifting Junction Isolated driver IC technology
NISO	Non-isolated low voltage driver IC technology
SOI	Level-shifting Silicon On Insulator driver IC technology

Abbreviation	Configuration
3PH	3-phase or 6 channel (HS isolated) driver
2HS	Dual channel high side (both isolated) driver
2LS	Dual channel low side (non-isolated) driver
HB	Interlocked half bridge (HS isolated) driver
HS+LS	Non-interlocked half bridge (HS isolated) driver
1LS	Single channel low side (non-isolated) driver
1HS	Single channel high side isolated driver

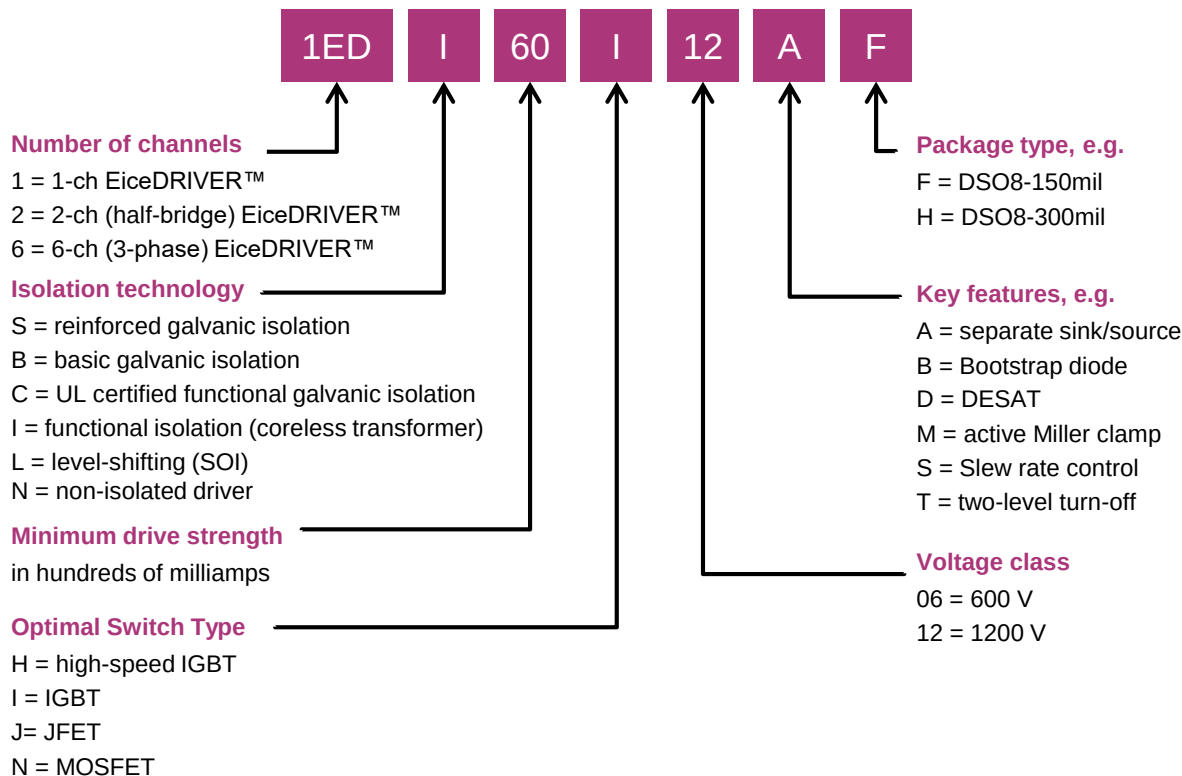
Abbreviation	Features	Descriptions
BRAKE	Brake chopper	Integrated brake IGBT driver with protection
BSD	Integrated bootstrap diode	Integrated bootstrap reduces BOM
CLAMP	Active Miller clamp	Protection against inadvertent dynamic turn-on because of parasitic effects
CMP	Comparator	General purpose comparator included
DESAT	Desaturation protection	Protects the switch(IGBT) at short circuit
DT-PROG	Programmable dead time	Dead time is programmable with external resistor for flexible design
EN	Enable	Dedicated pin terminates all outputs
FAULT-RPT	Fault reporting	Indicates an over-current or under-voltage shutdown has occurred
FAULT-RST	Fault reset	Dedicated pin resets the DESAT-FAULT-state of the chip
FAULT-SD	Adjustable shutdown	Pin programs shutdown time and can indicates fault conditions

Abbreviation	Features	Descriptions
HVSTART	High-voltage start-up	Provides easy and fast circuit start-up while enabling low circuit standby losses
IND-STND	Industry-standard pinout	For easy system design upgrades
JFETDRIVE	Dedicated JFET control	Optimized to drive SiC JFET
OC	Over-current protection (ITRIP)	Ensures safe application operation in case of over-current
OLP	Over load protection	Protects IC with maximum power limit
OPAMP	Operational Amplifier	An independent opamp for current measurement or over-current detection
OSC	Oscillator	Integrated front end oscillator
INPUT-OVP	Input OVP protection	AC line over-voltage protection
SD	Shutdown	Dedicated pin disables the IC outputs
SD-PROG	Programmable shutdown	A shutdown feature has been designed into a pin
SD-SOFT	Soft over-current shutdown	Dedicated pin turns off the desaturated transistor, preventing over-voltages
SEP-GND	Separate pin for logic ground	Dedicated pin or logic ground for improved noise immunity
SEP-OUT	Separate sink/source outputs	Simplifies gate resistor selection, reduces BOM, and improves dV/dt control
SOFT-START	Soft start	Soft-start switching to minimize the stresses for power components
SRC	Slew rate control	Changing the switching speed on-the-fly
STP	Shoot-through protection	Additional shoot-through protection logic such as interlock
TLTO	Two-level turn-off	Lowens VEC overshoots at turn off during short circuits or over current events
TSD	Thermal shutdown	Internal over temperature protection circuit protects the IC against excessive power loss and overheating
UL	UL 1577	Double galvanic isolation certification
UVLO	Under voltage lockout	Ensures safe application operation by avoiding unexpected driver behavior at low voltages
VDE	VDE 0884-10 or VDE 0884-11	Reinforced galvanic isolation certifications for magnetic couplers

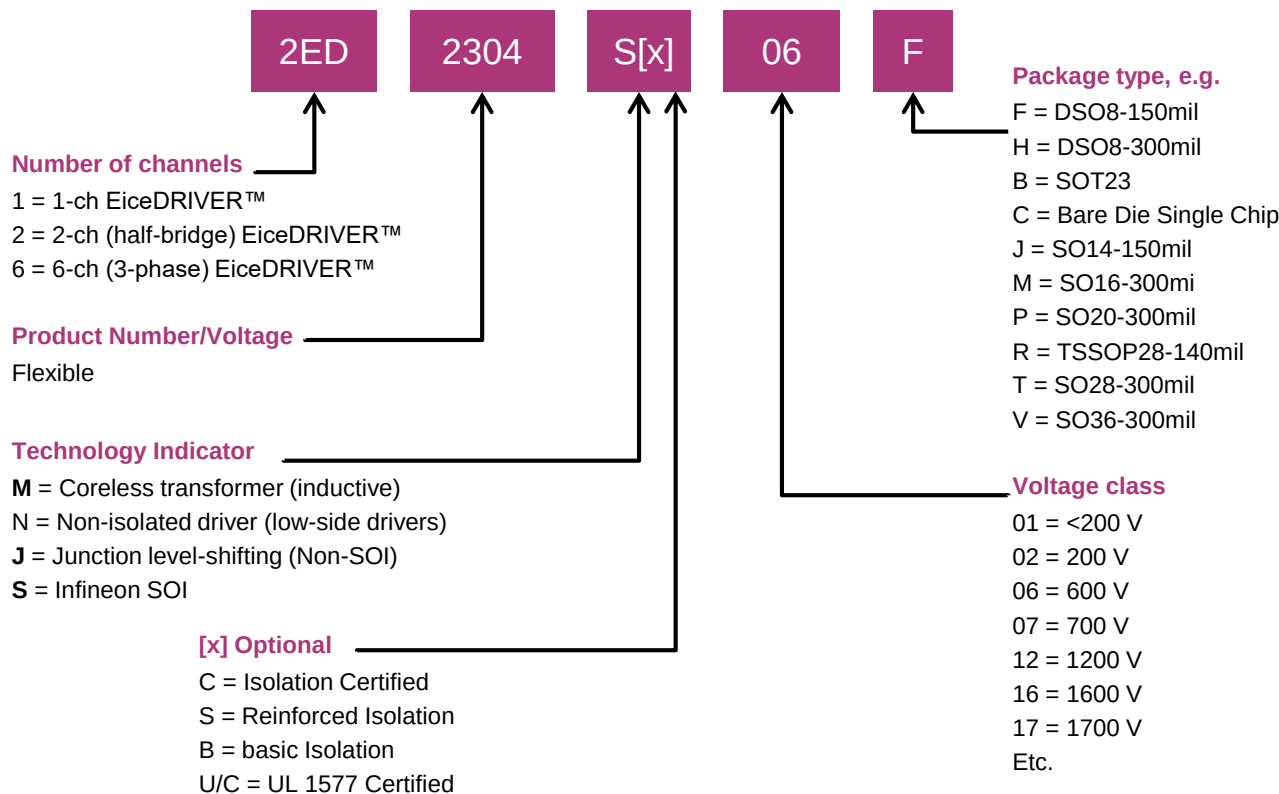
Naming convention for existing families of gate driver ICs



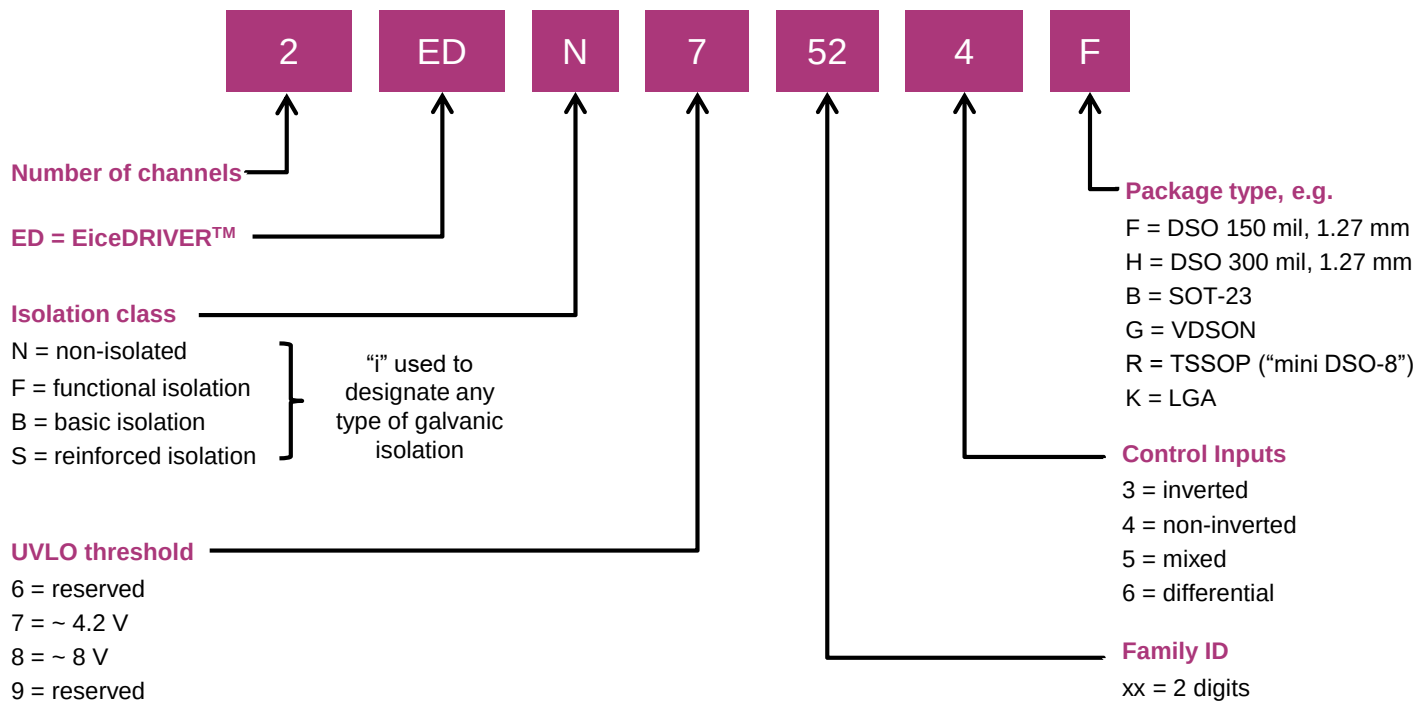
Naming convention for existing families of gate driver ICs



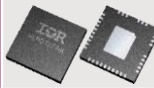
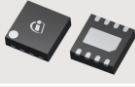
Naming convention for existing and upcoming families of gate driver ICs



Naming convention for existing and upcoming families of gate driver ICs

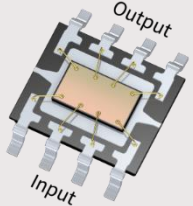
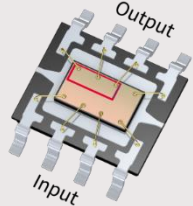
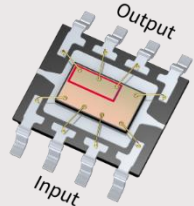
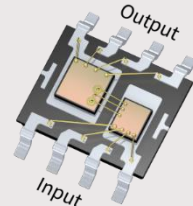


Driver Package Information

DSO-8 (SOIC-8N)		DSO-24 (DSO-28 with 24 pin)		MQFP-64		VQFN-14 (MLPQ 4X4 14L)	
DSO-8 300-mil (SOIC-8WB)		DSO-28 (SOIC-28WB)		SOT23-5		VQFN-28 (MLPQ 5X5 28L)	
DSO-14 (SOIC-14N)		DSO-36		SOT23-6		VQFN-34 (MLPQ 7X7 48L)	
DSO-16		DIP-8 (PDIP-8)		SSOP-24		VQFN-48	
DSO-16 300-mil (SOIC-16WB)		DIP-14 (PDIP-14)		TFLGA-13		WSO-6	
DSO-18		DIP-28 (PDIP-28)		TQFN-48		WSO-8	
DSO-19		LCC-32 (PLCC-44)		TSSOP-28		DSO-8 with power pad	
DSO-20 (SOIC-20WB)		LQFP-64		TSSOP-8			

IPC Gate Driver Product Types

Portfolio Segmentation

Non-Isolated	Level-Shift		Galvanic Isolation
Low Voltage	Junction Isolation	Silicon On Insulator	Coreless Transformer
			
› Comprehensive Families of single- and dual-low-side drivers with flexible options for output current, logic configurations, and UVLOs › Rugged technology of the high-voltage gate drivers, and on the latest state-of-the-art 130-nm process › Industry-standard DSO-8 and small form-factor SOT23 and WSON packages	› Proven technology trustfully used in all high-voltage gate drive applications for 20 years › Largest portfolio of 200 V, 600 V, and 1200 V industry standard gate drivers using rugged proprietary HVIC process › Solution-specific motor-control and switch-mode power applications	› Infineon SOI technology for high-voltage applications with inherent integrated boot-strap diode capability and lower level-shift losses › Industry best-in-class robustness against negative VS transient spikes › Higher level of integration reduces BOM and total system cost	› Magnetically-coupled isolation technology provides galvanic isolation for industrial applications › Strongest gate-drive output currents (up to 14 A) reducing need for external booster circuits › Reliable and accurate protection such as precise & tight DESAT protection, active Miller clamp, isolation rating in different packages, UL 1577 and VDE 0884-11 certification

Agenda

1 Manual & Technology, Configuration and Features

2 Application Areas

3 Recommended Products

4 Products At A Glance

5 Support Material

Infiniteon's comprehensive driver portfolio covers the complete range of applications



Home Appliance



Battery Driven



Industrial



Mobility



Renewable Energy

Home Appliance



Home Appliance



Battery Driven



Industrial



Mobility



Renewable Energy



Air Conditioner
(Residential-PFC)



Air Conditioner
(Residential-Inverter)



Battery Charger
(Appliance)



Dish Washer



Dryer



Electric Tools
(Battery)



Hood Fan/
Ceiling Fan/
Freezer Fan



Induction Cooking



Lighting



Microwave



Power Supply



Power Tools (AC)



Refrigerator/
Freezer



Vacuum
Cleaner



Washing
Machine

Battery Driven



Home Appliance



Battery Driven



Industrial



Mobility



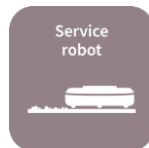
Renewable Energy



Drones/ Multicopters



Lawn mower



Service Robotics



Toys



Vacuum

Industrial



Home Appliance



Battery Driven



Industrial



Mobility



Renewable Energy



Air Conditioner
(Commercial)



Automatic Gate and
Door Opening
Systems



Building Fans



Industrial Drive



Heavy Duty Drives



Servo Drives



Elevator/ Escalator



Forklift Truck



Pumps



Sewing Machine
(Commercial)



UPS



Welding

Mobility



Home Appliance



Battery Driven



Industrial



Mobility



Renewable Energy



CAV



E-Bike/E-Scooter
(<700W)



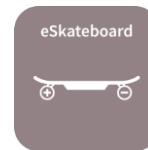
EV Charger/
Battery Charger



General Traction



Light Electric
Vehicle
(<10kW)



Small Electric
Vehicle
(<3kW)

Renewable Energy



Home Appliance



Battery Driven



Industrial



Mobility



Renewable Energy



Heat Pumps



Solar Inverter

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Home Appliance

Air Conditioner (Residential - PFC)

Functional Unit	Indoor/Outdoor PFC		
Voltage Range	400...600 V		
Power Range	<3 kW		
Switch Types	MOSFET/IGBT		
Topology	Boost	Interleaved	Totem-Pole

Recommended Products			
Product 1	1ED44175N01B	IRS4427	2EDL05(I,N)06PF
Description	25 V Single Low-Side Gate Driver IC	25 V Dual Low-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc 12.7-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	SOT-23 6pin	DSO-8, DIP-8	DSO-8
Features	-CS, OCP, FAULT, EN, UVLO	Vout 6-20 V	BSD, STP, UVLO
Switch Type	IGBT	IGBT, MOSFET	IGBT/MOSFET
Similar Products	Family: 1ED4417x	Family: IRS4426 , IRS4428 , IRS44262	Family: 2EDL

Product 2	1ED44173N01B	2EDN8524F	
Description	25 V Single Low-Side Gate Driver IC	20 V Dual Low-Side Gate Driver IC	
Key Attributes	NISO, 1LS, 2.6 A, Vcc=8.6-20 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	
Package	SOT-23 6pin	DSO-8	
Features	-CS, OCP, FAULT, EN, UVLO	EN, UVLO	
Switch Type	MOSFET	GaN, IGBT, MOSFET	
Similar Products	Family: 1ED4417x	Family: 2EDN	

Product 3	1ED44176N01F		
Description	25 V Single Low-Side Gate Driver IC		
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V		
Package	DSO-8		
Features	+CS, OCP, FAULT, EN, UVLO		
Switch Type	IGBT, MOSFET		
Similar Products	Family: 1ED4417x		

Product 4	IRS44273L		
Description	25 V Single Low-Side Gate Driver IC		
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V		
Package	SOT23-5		
Features	UVLO, cost-effective		
Switch Type	IGBT, MOSFET		
Similar Products			

Product 5	1EDN8511B		
Description	20 V Single Low-Side Gate Driver IC		
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V		
Package	SOT23-6		
Features	EN, SEP-OUT, UVLO		
Switch Type	GaN, IGBT, MOSFET		
Similar Products	Family: 1EDN		



Air Conditioner (Residential – Inverter, Compressor, SMPS)

Functional Unit	Indoor Fan Inverter	Outdoor Compressor	Outdoor Fan Inverter	SMPS
Voltage Range	480 V			
Power Range	<0.5 kW	<3 kW	<1.5 kW	100 W
Switch Types	IGBT	IGBT	MOSFET/IGBT	MOSFET

	Recommended Products			
Product 1	6EDL04I06xT	6EDL04I06xT	6EDL04(I,N)06xT	2EDN8524F
Description	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Drive IC	20 V Dual Low-Side Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V
Package	DSO-28 300mil	DSO-28 300mil	DSO-28 300mil	DSO-8
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, UVLO
Switch Type	IGBT	IGBT	IGBT/MOSFET	GaN, IGBT, MOSFET
Similar Products	Family: 6EDL	Family: 6EDL	Family: 6EDL	Family: 2EDN
Product 2	IR2136	IRS2334	IIRS2334	1ED44173N01B
Description	600 V 3-Phase Half-Bridge Gate Driver IC	600 V 3-Phase Gate Driver IC	600 V 3-Phase Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	JI, 3PH, 0.2/0.35 A, Vcc= 11.6-20 V	JI, 3PH, 0.2/0.35 A, Vcc= 11.6-20 V	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-20 300mil, VQFN-28	DSO-20 300mil, VQFN-28	SOT-23 6pin
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	UVLO, IND-STND	UVLO, IND-STND	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET	IGBT	IGBT	MOSFET
Similar Products	Family: IR2136x			Family: 1ED4417x
Product 3	IRS2890DS	IRS2890DS	IRS2890DS	IRS4427
Description	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC	25 V Dual Low-Side Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V
Package	DSO-14	DSO-14	DSO-14	DSO-8, DIP-8
Features	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO	Vout 6-20 V
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products				Family: IRS4426, IRS4428, IRS44262
Product 4	2ED2304S06F	2ED2304S06F	2ED2304S06F	IRS2153(1)D
Description	650 V Half-Bridge Gate Driver IC	650 V Half-Bridge Gate Driver IC	650 V Half-Bridge Gate Driver IC	600 V Self-Oscillating Half-Bridge Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, HB, 0.18/0.26 A, Vcc= 12-16.8 V
Package	DSO-8	DSO-8	DSO-8	DSO-8, DIP-8, CHIP
Features	BSD, STP, UVLO	BSD, STP, UVLO	BSD, STP, UVLO	BSD, SD-PROG, OSC, STP, SD, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs	Family: SOI gate driver ICs	Family: SOI gate driver ICs	
Product 5	2EDL05(I,N)06PF	2EDL23I06PJ	2EDL05(I,N)06PF	IRS2186(4)
Description	600 V Half-Bridge Gate Drive IC	600 V Half-Bridge Gate Drive IC	600 V Half-Bridge Gate Drive IC	600 V High and Low Side Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, HS+LS, 4/4 A, Vcc= 9.8-20 V
Package	DSO-8	DSO-14	DSO-8	DSO-14, DIP-14, DSO-8, DIP-8, CHIP
Features	BSD, STP, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	BSD, STP, UVLO	SEP-GND, UVLO, IND-STND
Switch Type	IGBT/MOSFET	IGBT	IGBT/MOSFET	IGBT, MOSFET
Similar Products	Family: 2EDL	Family: 2EDL23N06PJ	Family: 2EDL	



Battery Charger (Appliance)

Functional Unit	PFC
Voltage Range	400 V
Power Range	<3 kW
Switch Types	IGBT/MOSFET

Recommended Products	
Product 1	1ED44173N01B
Description	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	SOT-23 6pin
Features	-CS, OCP, FAULT, EN, UVLO
Switch Type	MOSFET

Product 2	1ED44175N01B
Description	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc 12.7-20 V
Package	SOT-23 6pin
Features	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT
Similar Products	Family: 1ED4417x

Product 3	1ED44176N01F
Description	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V
Package	DSO-8
Features	+CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: 1ED4417x

Product 4	2EDN8524F
Description	20 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V
Package	DSO-8
Features	EN, UVLO
Switch Type	GaN, IGBT, MOSFET
Similar Products	Family: 2EDN

Product 5	1EDN8511B
Description	20 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V
Package	SOT23-6
Features	EN, SEP-OUT, UVLO
Switch Type	GaN, IGBT, MOSFET
Similar Products	Family: 1EDN

Dish Washer

Functional Unit	Drain Pump Inverter	Spray/Main circulator pump Inverter
Voltage Range	<400 V	<400 V
Power Range	20 W..30 W	80 W..90 W
Switch Types	MOSFET / IGBT	MOSFET / IGBT

Recommended Products

Product 1	IRS2334	6EDL04(I,N)06xT
Description	600 V 3-Phase Gate Driver IC	600 V 3-Phase Gate Drive IC
Key Attributes	J1, 3PH, 0.2/0.35 A, Vcc= 11.6-20 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-20 300mil, VQFN-28	DSO-28 300mil
Features	UVLO, IND-STND	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT	IGBT/MOSFET
Similar Products		Family: 6EDL
Product 2	IR2136	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	J1, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	J1, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IR2136x	Family: IR2136x
Product 3	IRS2890DS	IRS2890DS
Description	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC
Key Attributes	J1, HB, 0.22/0.48 A, Vcc= 9.8-20 V	J1, HB, 0.22/0.48 A, Vcc= 9.8-20 V
Package	DSO-14	DSO-14
Features	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Product 4	6EDL04(I,N)06xT	2ED2304S06F
Description	600 V 3-Phase Gate Drive IC	650 V Half-Bridge Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-28 300mil	DSO-8
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	BSD, STP, UVLO
Switch Type	IGBT/MOSFET	IGBT, MOSFET
Similar Products	Family: 6EDL	Family: SOI gate driver ICs
Product 5	2ED2304S06F	2EDL05(I,N)06PF
Description	650 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8	DSO-8
Features	BSD, STP, UVLO	BSD, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT/MOSFET
Similar Products	Family: SOI gate driver ICs	Family: 2EDL

Functional Unit	Drum drive	Compressor	Fan drive
Voltage Range	<400 V	<400 V	<400 V
Power Range	200 W	200 W	50 W
Switch Types	MOSFET / IGBT	MOSFET / IGBT	MOSFET / IGBT

Recommended Products			
Product 1	6EDL04(L,N)06xT	6EDL04(L,N)06xT	6EDL04(L,N)06xT
Description	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil	DSO-28 300mil	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT/MOSFET	IGBT/MOSFET	IGBT/MOSFET
Similar Products	Family: 6EDL	Family: 6EDL	Family: 6EDL
Product 2	2EDL05(L,N)06PF	IR2136	2EDL05(L,N)06PF
Description	600 V Half-Bridge Gate Drive IC	600 V 3-Phase Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-8
Features	BSD, STP, UVLO	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	BSD, STP, UVLO
Switch Type	IGBT/MOSFET	IGBT, MOSFET	IGBT/MOSFET
Similar Products	Family: 2EDL	Family: IR2136x	Family: 2EDL
Product 3	IRS2890DS	IRS2890DS	IRS2890DS
Description	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V
Package	DSO-14	DSO-14	DSO-14
Features	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Product 4	IR2136	2EDL05(L,N)06PF	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Drive IC	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-8	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	BSD, STP, UVLO	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET	IGBT/MOSFET	IGBT, MOSFET
Similar Products	Family: IR2136x	Family: 2EDL	Family: IR2136x
Product 5	2ED2304S06F	2ED2304S06F	2ED2304S06F
Description	650 V Half-Bridge Gate Driver IC	650 V Half-Bridge Gate Driver IC	650 V Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8	DSO-8	DSO-8
Features	BSD, STP, UVLO	BSD, STP, UVLO	BSD, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IRS2304	Family: IRS2304	Family: IRS2304



Electric Tools (Battery Powered)

Functional Unit	Motor Inverter
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

New

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL

Product 2	IRS2007S.M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8, VQFN-14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x

Product 3	IRS2301S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 0.2/0.35 A, Vcc= 5-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET

Product 4	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL

Product 5	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET



Hood Fan/ Ceiling Fan/ Freezer Fan

Functional Unit	Fan Inverter
Voltage Range	<400 V
Power Range	200 W
Switch Types	MOSFET / IGBT

 New

Recommended Products	
Product 1	6EDL04(I,N)06xT
Description	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT/MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2890DS
Description	600 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V
Package	DSO-14
Features	FAULT-RPT, BSD, OCP, STP, UVLO
Switch Type	IGBT, MOSFET
Product 4	2ED2304S06F
Description	650 V Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: IRS2304
Product 5	2EDL05(I,N)06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	IGBT/MOSFET
Similar Products	Family: 2EDL

Induction Cooking

Functional Unit	Multi-hub	Single-hub
Topology	Half-bridge	Single-ended

New

Recommended Products		
Product 1	2EDL23I06PJ	1ED44175N01B
Description	600 V Half-Bridge Gate Drive IC	25 V Single Low-Side Gate Driver IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	NISO, 1LS, 2.6 A, Vcc=12.78-20 V
Package	DSO-14	SOT-23 6pin
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT	IGBT
Similar Products	Family: 2EDL23N06PJ	Family: 1ED4417x
Product 2	2ED2182(4)S06F/J	1ED44176N01F
Description	650 V Half-Bridge Gate Drive IC	25 V Single Low-Side Gate Driver IC
Key Attributes	SOI, HB, 2.5/2.5 A, Vcc= 10-20 V	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V
Package	DSO-8, DSO-14, CHIP	DSO-8
Features	STP, UVLO	+CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs	Family: 1ED4417x
Product 3	2ED2110S06M	1ED44173N01B
Description	650 V High and Low Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	JI, HS+LS, 2.5/2.5 A, Vcc= 9.6-20 V	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	DSO-16 300mil	SOT-23 6pin
Features	SEP-GND, SD, UVLO, IND-STND	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET	MOSFET
Similar Products	Family: IRS2110	Family: 1ED4417x
Product 4	1EDI40I12AF	IRS44273L
Description	1200 V Single High-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	CT, 1HS, 7.5/6.8 A, Vcc= 12.7-35 V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V
Package	DSO-8	SOT23-5
Features	SEP-GND, SEP-OUT, UVLO	UVLO, cost-effective
Switch Type	IGBT, SiC MOSFET	IGBT, MOSFET
Similar Products	Family: 1ED Compact	
Product 5	2ED020I12-F2	
Description	1200 V Dual High-Side Gate Driver IC	
Key Attributes	CT, 2HS, 2/2 A, Vcc= 12.6-20 V	
Package	DSO-36 300mil	
Features	CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	
Switch Type	IGBT, SiC MOSFET	
Similar Products	Family: 1ED/2ED-F2	



Functional Unit	PFC	HB (LLC)	HS-Buck	Sync-Buck
Voltage Range	<450 V	<450 V		
Power Range	<200 W	<200 W		
Switch Types	MOSFET	MOSFET		

Recommended Products				
Product 1	1ED44173N01B	2EDL05N06PF	IRS21271	2EDL05(I,N)06PF
Description	25 V Single Low-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC	600 V Single High-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc=8.6-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, 1HS, 0.29/0.6 A, Vcc= 11.8-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	SOT-23 6pin	DSO-8	DSO-8, DIP-8, CHIP	DSO-8
Features	-CS, OCP, FAULT, EN, UVLO	BSD, STP, UVLO	FAULT-RPT, OCP, UVLO	BSD, STP, UVLO
Switch Type	MOSFET	MOSFET	IGBT, MOSFET	IGBT/MOSFET
Similar Products	Family: 1ED4417x	Family: 2EDL	Family: IRS21271	Family: 2EDL
Product 2	1ED44175N01B	2ED2304S06F	IRS25752L	2ED2304S06F
Description	25 V Single Low-Side Gate Driver IC	650 V Half-Bridge Gate Driver IC	600 V Single High-Side Gate Driver IC	650 V Half-Bridge Gate Driver IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc 12.7-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, 1HS, 0.16/0.24 A, Vcc= 10-18 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	SOT-23 6pin	DSO-8	SOT23-6	DSO-8
Features	-CS, OCP, FAULT, EN, UVLO	BSD, STP, UVLO	UVLO	BSD, STP, UVLO
Switch Type	IGBT	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: 1ED4417x	Family: IRS2304		Family: IRS2304
Product 3	1ED44176N01F	IRS2153(1)D	IRS20752L	
Description	25 V Single Low-Side Gate Driver IC	600 V Self-Oscillating Half-Bridge Driver IC	200 V Single High-Side Gate Driver IC	
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	JI, HB, 0.18/0.26 A, Vcc= 12-16.8 V	JI, 1HS, 0.16/0.24 A, Vcc= 10-18 V	
Package	DSO-8	DSO-8, DIP-8, CHIP	SOT23-6	
Features	+CS, OCP, FAULT, EN, UVLO	BSD, SD-PROG, OSC, STP, SD, UVLO	UVLO	
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	
Similar Products	Family: 1ED4417x			
Product 4	2EDN8524F	2ED2184S06F	IRS10752L	
Description	20 V Dual Low-Side Gate Driver IC	650 V Half-Bridge Gate Driver IC	100 V Single High-Side Gate Driver IC	
Key Attributes	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	SOI, HB, 2.5/2.5 A, Vcc= 10-20 V	JI, 1HS, 0.16/0.24 A, Vcc= 10-18 V	
Package	DSO-8	DSO-8	SOT23-6	
Features	EN, UVLO	STP, SD, UVLO	UVLO	
Switch Type	GaN, IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	
Similar Products	Family: 2EDN	Family: SOI gate driver ICs		
Product 5	1EDN8511B	1EDI20N12AF		
Description	20 V Single Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC		
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V	CT, 1HS, 4/3.5 A, Vcc= 10-35 V		
Package	SOT23-6	DSO-8		
Features	EN, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO		
Switch Type	GaN, IGBT, MOSFET	GaN, MOSFET, SiC MOSFET		
Similar Products	Family: 1EDN	Family: 1ED Compact		



Functional Unit		
Voltage Range	<400 V	
Power Range	<800 W	
Switch Types	IGBT	
Topology	Half-bridge	Single-ended

Recommended Products

Product 1	2EDL05I06PJ	1ED44175N01B
Description	600 V Half-Bridge Gate Drive IC	25 V Single Low-Side Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V	NISO, 1LS, 2.6 A, Vcc=12.78-20 V
Package	DSO-14	SOT-23 6pin
Features	BSD, STP, UVLO	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT	IGBT
Similar Products	Family: 2EDL	Family: 1ED4417x
Product 2	2ED2110S06M	1ED44176N01F
Description	650 V High and Low Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	JI, HS+LS, 2.5/2.5 A, Vcc= 9.6-20 V	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V
Package	DSO-16 300mil	DSO-8
Features	SEP-GND, SD, UVLO, IND-STND	+CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs	Family: 1ED4417x
Product 3	1EDI20I12AF	1ED44173N01B
Description	1200 V Single High-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	DSO-8	SOT-23 6pin
Features	SEP-GND, SEP-OUT, UVLO	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT	MOSFET
Similar Products	Family: 1ED Compact	Family: 1ED4417x
Product 4		IRS44273L
Description		25 V Single Low-Side Gate Driver IC
Key Attributes		NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V
Package		SOT23-5
Features		UVLO, cost-effective
Switch Type		IGBT, MOSFET
Similar Products		



Functional Unit	PFC	DC-DC
Voltage Range	<400 V	<400 V
Power Range	<3 kW	<3 kW
Switch Types		

Recommended Products		
Product 1	1ED44175N01B	1EDI20N12AF
Description	25 V Single Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc 12.7-20 V	CT, 1HS, 4/3.5 A, Vcc= 10-35 V
Package	SOT-23 6pin	DSO-8
Features	-CS, OCP, FAULT, EN, UVLO	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT	GaN, MOSFET, SiC MOSFET
Similar Products	Family: 1ED4417x	Family: 1ED Compact
Product 2	IRS4427	1EDI60N12AF
Description	25 V Dual Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	CT, 1HS, 10/9.4 A, Vcc= 10-35 V
Package	DSO-8, DIP-8	DSO-8
Features	Vout 6-20 V	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT, MOSFET	GaN, MOSFET, SiC MOSFET
Similar Products	Family: IRS4426 , IRS4428 , IRS44262	Family: 1ED Compact
Product 3	IRS44273L	
Description	25 V Single Low-Side Gate Driver IC	
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	
Package	SOT23-5	
Features	UVLO	
Switch Type	IGBT, MOSFET	
Similar Products	Family: IR44273L , IR44272L	
Product 4	1EDN8511B	
Description	20 V Single Low-Side Gate Driver IC	
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V	
Package	SOT23-6	
Features	EN, SEP-OUT, UVLO	
Switch Type	GaN, IGBT, MOSFET	
Similar Products	Family: 1EDN	

Power Tools (AC)

Functional Unit	Motor Inverter	Motor Inverter
Voltage Range	<400 V	<400 V
Power Range	<3 kW	<1 kW
Switch Types	IGBT	IGBT

Recommended Products		
Product 1	IR2235	6EDL04I06xT
Description	1200 V 3-Phase Half-Bridge Gate Driver IC	600 V 3-Phase Gate Drive IC
Key Attributes	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil, DIP-28, LCC-32	DSO-28 300mil
Features	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT	IGBT
Similar Products	Family: IR2233, IR2133, IR2135	Family: 6EDL
Product 2	2EDL23I06PJ	IR2136
Description	600 V Half-Bridge Gate Drive IC	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-14	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT	IGBT, MOSFET
Similar Products	Family: 2EDL23N06PJ	Family: IR2136x
Product 3	IR2214SS	2EDL05I06PF
Description	1200 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Drive IC
Key Attributes	JI, HB, 2/3 A, Vcc= 11.4-20 V	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V
Package	SSTOP-24	DSO-8
Features	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	BSD, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT
Similar Products	Family: IR2114SS	Family: 2EDL
Product 4	IR2213	2ED2304S06F
Description	1200 V High and Low Side Gate Driver IC	650 V Half-Bridge Gate Driver IC
Key Attributes	JI, HS+LS, 2/2.5 A, Vcc= 11.7-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-16 300mil, DIP-14, CHIP	DSO-8
Features	SEP-GND, SD, UVLO, IND-STND	BSD, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products		Family: IRS2304
Product 5	1EDI20I12AF	
Description	1200 V Single High-Side Gate Driver IC	
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	
Package	DSO-8	
Features	SEP-GND, SEP-OUT, UVLO	
Switch Type	IGBT	
Similar Products	Family: 1ED Compact	



Refrigerator/ Freezer

Functional Unit	Compressor Inverter
Voltage Range	<400 V
Power Range	200 W
Switch Types	MOSFET / IGBT



New

Recommended Products	
Product 1	6EDL04(L,N)06xT
Description	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT/MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2890DS
Description	600 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V
Package	DSO-14
Features	FAULT-RPT, BSD, OCP, STP, UVLO
Switch Type	IGBT, MOSFET
Product 4	2ED2304S06F
Description	650 V Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: IRS2304
Product 5	2EDL05(L,N)06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	IGBT/MOSFET
Similar Products	Family: 2EDL



Functional Unit	SR Motor Inverter	BLDC Inverter	PFC
Voltage Range	<400 V	<400 V	<400 V
Power Range	<1.6 kW	<1.5 kW	<1.5 kW
Switch Types	IGBT		

Recommended Products			
Product 1	2EDL05I06PE	6EDL04(L,N)06xT	1ED44173N01B
Description	600 V Half-Bridge Gate Drive IC	600 V 3-Phase Gate Drive IC	25 V Single Low-Side Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	DSO-8	DSO-28 300mil	SOT-23 6pin
Features	BSD, STP, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	-CS, OCP, FAULT, EN, UVLO
Switch Type	IGBT	IGBT/MOSFET	MOSFET
Similar Products	Family: 2EDL	Family: 6EDL	Family: 1ED4417x
Product 2	2ED2181(4)	IR2136	IRS4427
Description	650 V High and Low Side Gate Driver IC	600 V 3-Phase Half-Bridge Gate Driver IC	25 V Dual Low-Side Gate Driver IC
Key Attributes	SOI, HS+LS, 2.5/2.5 A, Vcc= 10-20 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V
Package	DSO-8, DSO-14	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-8, DIP-8
Features	SEP-GND, UVLO, IND-STND	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	Vout 6-20 V
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs	Family: IR2136x	Family: IRS4426 , IRS4428 , IRS44262
Product 3	IRS2890DS	IRS2890DS	IRS44273L
Description	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V
Package	DSO-14	DSO-14	SOT23-5
Features	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO	UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products			Family: IR44273L , IR44272L
Product 4		2EDL23I06PJ	2EDN8524F
Description		600 V Half-Bridge Gate Drive IC	20 V Dual Low-Side Gate Driver IC
Key Attributes		SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V
Package		DSO-14	DSO-8
Features		EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	EN, UVLO
Switch Type		IGBT	GaN, IGBT, MOSFET
Similar Products		Family: 2EDL23N06PJ	Family: 2EDN
Product 5		2ED2304S06F	1EDN8511B
Description		650 V Half-Bridge Gate Driver IC	20 V Single Low-Side Gate Driver IC
Key Attributes		SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V
Package		DSO-8	SOT23-6
Features		BSD, STP, UVLO	EN, SEP-OUT, UVLO
Switch Type		IGBT, MOSFET	GaN, IGBT, MOSFET
Similar Products		Family: IRS2304	Family: 1EDN



Washing Machine

Functional Unit	Drain Pump Inverter	Drum Motor Inverter
Voltage Range	<400V	<400V
Power Range	20W...30W	<1.5kW
Switch Types	MOSFET / IGBT	IGBT

Recommended Products		
Product 1	2EDL05(I,N)06PF	2EDL05I06PF
Description	600 V Half-Bridge Gate Drive IC	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V
Package	DSO-8	DSO-8
Features	BSD, STP, UVLO	BSD, STP, UVLO
Switch Type	IGBT/MOSFET	IGBT
Similar Products	Family: 2EDL	Family: 2EDL
Product 2	6EDL04(I,N)06xT	6EDL04I06xT
Description	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT/MOSFET	IGBT
Similar Products	Family: 6EDL	Family: 6EDL
Product 3	IRS2890DS	IRS2890DS
Description	600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V	JI, HB, 0.22/0.48 A, Vcc= 9.8-20 V
Package	DSO-14	DSO-14
Features	FAULT-RPT, BSD, OCP, STP, UVLO	FAULT-RPT, BSD, OCP, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products		
Product 4	2ED2304S06F	2ED2304S06F
Description	650 V Half-Bridge Gate Driver IC	650 V Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8	DSO-8
Features	BSD, STP, UVLO	BSD, STP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IRS2304	Family: IRS2304
Product 5	IR2136	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IR2136x	Family: IR2136x



Battery Driven

Functional Unit	Motor Inverter
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

New

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET
Product 3	IRS2007S,M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8, VQFN 14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x
Product 4	IRS2301S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 0.2/0.35 A, Vcc= 5-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	IRS2301S
Product 5	1EDI60N12AF
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 10-35 V
Package	DSO-8
Features	SEP-GND, SEP-OUT, UVLO
Switch Type	GaN, MOSFET, SiC MOSFET
Similar Products	Family: 1ED Compact



Lawn mower

Functional Unit	BLDC
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2007S,M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8, VQFN 14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x
Product 4	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL
Product 5	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET



Functional Unit	
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

New

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, V _{cc} = 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, V _{cc} = 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2007S.M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, V _{cc} = 9.8-20 V
Package	DSO-8, VQFN 14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x
Product 4	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, V _{cc} = 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL
Product 5	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, V _{cc} = 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET



Functional Unit	BLDC
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2007S,M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8, VQFN 14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x
Product 4	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL
Product 5	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET



Functional Unit	BLDC
Voltage Range	<200 V
Power Range	<1 kW
Switch Types	MOSFET

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	1ED44173N01B
Description	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 2.6 A, Vcc=8.6-20 V
Package	SOT-23 6pin
Features	-CS, OCP, FAULT, EN, UVLO
Switch Type	MOSFET
Similar Products	Family: 1ED4417x
Product 3	IRS20075.M
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8, VQFN 14
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x
Product 4	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL
Product 5	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET

Industrial

Air Conditioner (Commercial)

Functional Unit	CAC Compressor	CAC Fan	CAC
Voltage Range	480 V..800 V	480 V..800 V	480 V..800 V
Power Range	<17 kW	<2 kW	<12 kW
Switch Types	IGBT	IGBT	IGBT

Recommended Products			
Product 1	6ED2230S12T	6ED2230S12T	6ED2230S12T
Description	1200 V Three-Phase Gate Driver IC	1200 V Three-Phase Gate Driver IC	1200 V Three-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.35/0.65 A, Vcc = 13-20 V	SOI, 3PH, 0.35/0.65 A, Vcc = 13-20 V	SOI, 3PH, 0.35/0.65 A, Vcc = 13-20 V
Package	DSO-24 (DSO-28 w/4 pins removed)	DSO-24 (DSO-28 w/4 pins removed)	DSO-24 (DSO-28 w/4 pins removed)
Features	OCF, FAULT-RPT, SEP-GND, UVLO, EN, DT	OCF, FAULT-RPT, SEP-GND, UVLO, EN, DT	OCF, FAULT-RPT, SEP-GND, UVLO, EN, DT
Switch Type	IGBT	IGBT	IGBT
Product 2	1ED3491MU12M	1EDI2012MF	1ED02012-F2
Description	2300 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 11/7.5 A, Vcc= 13-35 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	CT, 1HS, 2/2 A, Vcc= 12.6-20 V
Package	DSO-16 300mil	DSO-8	DSO-16 300mil
Features	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	CLAMP, SEP-GND, UVLO	CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, SiC MOSFET	IGBT, SiC MOSFET	IGBT, SiC MOSFET
Similar Products	Family: X3 Analog	Family: 1ED Compact	Family: 1ED/2ED-F2
Product 3	2ED02012-F2	2ED02012-FI	1ED3491MU12M
Description	1200 V Dual High-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 2HS, 2/2 A, Vcc= 12.6-20 V	CT, HB, 1.5/2.5 A, Vcc= 13.5-18 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-36	DSO-18	DSO-16 300mil
Features	DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	CMP, OPAMP, STP, SD, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, SiC MOSFET	IGBT, MOSFET	IGBT, SiC MOSFET
Similar Products	Family: 1ED/2ED-F2	Family: 2ED-FI	Family: X3 Analog
Product 4	1ED3122MU12H	IR2235	IR2214SS
Description	2300 V Single High-Side Gate Driver IC	1200 V 3-Phase Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC
Key Attributes	CT, 1HS, 10/9 A, Vcc= 10-35 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V
Package	DSO-8 300mil	DSO-28 300mil, DIP-28, LCC-32	SSTOP-24
Features	CLAMP, SEP-GND, UVLO	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO
Switch Type	IGBT, MOSFET, SiC MOSFET	IGBT	IGBT, MOSFET
Similar Products	Family: X3 Compact	Family: IR2233, IR2133, IR2135	Family: IR2114SS
Product 5	IR2214SS	IR2214SS	1EDI2012MF
Description	1200 V Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	JI, HB, 2/3 A, Vcc= 11.4-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V
Package	SSTOP-24	SSTOP-24	DSO-8
Features	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	CLAMP, SEP-GND, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, SiC MOSFET
Similar Products	Family: IR2114SS	Family: IR2114SS	Family: 1ED Compact

Automatic Gate and Door Opening Systems

Functional Unit	Motor Inverter
Voltage Range	200 V...400 V
Power Range	<1 kW
Switch Types	IGBT/MOSFET

New

Recommended Products	
Product 1	6EDL04I06PT
Description	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, V _{CC} = 12.5-17.5 V
Package	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT
Similar Products	Family: 6EDL (MOSFET available)

Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, V _{CC} = 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x

Product 3	2ED2101S06F
Description	650 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, V _{CC} = 9.8-20 V
Package	DSO-8
Features	STP, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs

Product 4	2EDL05(I,N)06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, V _{CC} = 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	IGBT/MOSFET
Similar Products	Family: 2EDL



Building Fans & Pumps



New

Functional Unit	PFC	Motor Inverter	Motor Inverter	Motor Inverter	Motor Inverter	Motor Inverter
Voltage Range	<400 V	<400 V	<400 V	<400 V	<400 V	<400 V
Power Range	<3.5 kW	<3 kW	<5 kW	<10 kW	<22 kW	<30 kW
Switch Types		IGBT/MOSFET	IGBT	IGBT	IGBT	IGBT

Recommended Products						
Product 1	1ED44176N01F	6EDL04(I,N)06XT	2EDL23I06PJ	1EDI30I12MF	1EDI60I12AF	1EDI60I12AF
Description	25 V Single Low-Side Gate Driver IC	600 V 3-Phase Gate Drive IC	600 V Half-Bridge Gate Drive IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	CT, 1HS, 5.9/6.2 A, Vcc= 12.7-18 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V
Package	DSO-8	DSO-28 300mil	DSO-14	DSO-8	DSO-8	DSO-8
Features	OCF, FAULT, EN, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	CLAMP, SEP-GND, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT, MOSFET	IGBT/MOSFET	IGBT	IGBT	IGBT	IGBT
Similar Products		Family: 6EDL	Family: 2EDL23N06PJ	Family: 1ED Compact	Family: 1ED Compact	Family: 1ED Compact
Product 2	IRS4427	IR2136	2ED020I12-FI	1EDI20I12AF	1ED020I12-F2	1ED3124MU12H
Description	25 V Dual Low-Side Gate Driver IC	600 V 3-Phase Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	CT, HB, 1.5/2.5 A, Vcc= 13.5-18 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	CT, 1HS, 2/2 A, Vcc= 12.6-20 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package	DSO-8, DIP-8	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-18	DSO-8	DSO-16 300mil	DSO-8 300mil
Features	Vout 6-20 V	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	CMP, OPAMP, STP, SD, UVLO	SEP-GND, SEP-OUT, UVLO	CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	SEP-OUT, SEP-GND, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT	IGBT	IGBT, MOSFET, SIC MOSFET
Similar Products	Family: IRS4426, IRS4428, IRS44262	Family: IR2136x	Family: 2ED-FI	Family: 1ED Compact	Family: 1ED/2ED-F2	Family: X3 Compact
Product 3	IRS44273L	2EDL05(I,N)06PE	IR2214SS	1ED3122MU12H	1ED3122MU12H	1ED3491MU12M
Description	25 V Single Low-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC	1200 V Half-Bridge Gate Driver IC	2300 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	CT, 1HS, 10/9 A, Vcc= 10-35 V	CT, 1HS, 11/7.5 A, Vcc= 10-35 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	SOT23-5	DSO-8	SSTOP-24	DSO-8 300mil	DSO-8 300mil	DSO-16 300mil
Features	UVLO	BSD, STP, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	CLAMP, SEP-GND, UVLO	CLAMP, SEP-GND, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, MOSFET	IGBT/MOSFET	IGBT, MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, SIC MOSFET
Similar Products	Family: IR44273L, IR44272L	Family: 2EDL	Family: IR2114SS	Family: X3 Compact	Family: X3 Compact	Family: X3 Analog
Product 4	2EDN8524F	IR2214SS	IR2235		1ED3461MU12M	1EDS20I12SV
Description	20 V Dual Low-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V 3-Phase Half-Bridge Gate Driver IC		2300 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V		CT, 1HS, 7.5/5 A, Vcc= 13-35 V	CT, 1HS, 2/10 A, Vcc=12.6-20 V
Package	DSO-8	SSTOP-24	DSO-28 300mil, DIP-28, LCC-32		DSO-16 300mil	DSO-36
Features	EN, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO		Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	DESAT, EN, FAULT-RPT, OCP, SEP-GND, SD-SOFT, SRC, TLTO, UVLO, UL, VDE
Switch Type	GaN, IGBT, MOSFET	IGBT, MOSFET	IGBT		IGBT, SIC MOSFET	IGBT, MOSFET
Similar Products	Family: 2EDN	Family: IR2114SS	Family: IR2233, IR2133, IR2135		Family: X3 Analog	Family: 1ED-SRC

Industrial Drives/Elevator/Escalator/Servo Drives/GPI Drives

Functional Unit	SMPS	Brake Chopper	Motor Inverter	Motor Inverter	Motor Inverter	Motor Inverter
Voltage Range	<400 V	<600 V	<400 V	<400 V	<600 V	<600 V
Power Range	<3 kW	<3.5 kW	<750 W	<3.5 kW	<3.5 kW	<15 kW
Switch Types	MOSFET/IGBT	IGBT	IGBT	IGBT	IGBT	IGBT

Recommended Products						
Product 1	2EDN8524F	1EDI2012AF	6EDL04106xT	IR2133	2ED24417N01F	1ED3122MU12H
Description	20 V Dual Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	600 V 3-Phase Gate Drive IC	600 V 3-Phase Gate Driver IC	24 V Dual Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V	NISO, 2LS, 10/10 A, Vcc = 12-24 V	CT, 1HS, 10/9 A, Vcc= 10-35 V
Package	DSO-8	DSO-8	DSO-28 300mil	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-8 with power pad	DSO-8 300mil
Features	EN, UVLO	SEP-GND, SEP-OUT, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO	EN, UVLO	CLAMP, SEP-GND, UVLO
Switch Type	GaN, IGBT, MOSFET	IGBT	IGBT	IGBT, MOSFET	IGBT	IGBT, MOSFET, SIC MOSFET
Similar Products	Family: 1EDN	Family: 1ED Compact	Family: 6EDL	Family: IR2233, IR2235, IR2135	Family: low-side gate drives	Family: X3 Compact
Product 2	2ED2106S06F	1ED3124MU12H	IR2136	2EDL23106PJ	IR2214SS	1ED3461MU12M
Description	650 V High and Low Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	600 V 3-Phase Gate Driver IC	600 V Half-Bridge Gate Drive IC	1200 V Half-Bridge Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	SOI, HS+LS, 0.29/0.7 A, Vcc= 10-20 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	CT, 1HS, 7.5/5 A, Vcc= 13-35 V
Package	DSO-8	DSO-8 300mil	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-14	SSTOP-24	DSO-16 300mil
Features	UVLO	SEP-OUT, SEP-GND, UVLO	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET	IGBT	IGBT, MOSFET	IGBT, SIC MOSFET
Similar Products	Family: SOI gate driver ICs	Family: X3 Compact	Family: IR2136x	Family: 2EDL23N06PJ	Family: IR2114SS	Family: X3 Analog
Product 3	IRS2186(4)	IRS44273L	IR2114SS	IR2114SS	1EDI2012AF	2ED020112-FI
Description	600 V Half-Bridge and Low Side Gate Driver IC	250 V Single Low-Side Gate Driver IC	600 V Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 9.8-20 V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	CT, HB, 1.5/2.5 A, Vcc= 13.5-18 V
Package	DSO-14, DIP-14, DSO-8, DIP-8, CHIP	SOT23-5	SSOP-24	SSOP-24	DSO-8	DSO-18
Features	SEP-GND, UVLO, IND-STND	UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	SEP-GND, SEP-OUT, UVLO	CMP, OPAMP, STP, SD, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT	IGBT, MOSFET
Similar Products		Family: IR44273L, IR44272L	Family: IR2114SS	Family: IR2214SS	Family: 1EDI	Family: 2ED-FI
Product 4	2EDL23N06PJ	1EDN8511B	2EDL05106PF	1EDI2012AF	2ED020112-FI	1EDI4012AF
Description	600 V Half-Bridge Gate Drive IC	20 V Single Low-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC	1200 V Single High-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 9.9-17.5 V	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	CT, HB, 1.5/2.5 A, Vcc= 13.5-18 V	CT, 1HS, 7.5/6.8 A, Vcc= 12.7-35 V
Package	DSO-14	SOT23-6	DSO-8	DSO-8	DSO-18	DSO-8
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	EN, SEP-OUT, UVLO	BSD, STP, UVLO	SEP-GND, SEP-OUT, UVLO	CMP, OPAMP, STP, SD, UVLO	SEP-GND, SEP-OUT, UVLO
Switch Type	MOSFET	GaN, IGBT, MOSFET	IGBT	IGBT	IGBT, MOSFET	IGBT, SIC MOSFET
Similar Products	Family: 2EDL23106PJ	Family: 1EDN	Family: 2EDL	Family: 1ED Compact	Family: 2ED-FI	Family: 1ED Compact

Heavy Duty Drives

Functional Unit	Motor Inverter
Voltage Range	<600 V
Power Range	<200 kW
Switch Types	IGBT

Recommended Products	
Product 1	1ED3124MU12H
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package	DSO-8 300mil
Features	SEP-OUT, SEP-GND, UVLO, UL
Switch Type	IGBT, MOSFET, SiC MOSFET
Similar Products	Family: X3 Compact
Product 2	1ED3491MU12M
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-16 300mil
Features	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	IGBT, SiC MOSFET
Similar Products	Family: X3 Analog
Product 3	1ED3890MU12M
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-16 300mil
Features	I2C Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	IGBT, SiC MOSFET
Similar Products	Family: X3 Digital
Product 4	1ED160112AF
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V
Package	DSO-8
Features	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT
Similar Products	Family: 1ED Compact
Product 5	1EDS20112SV
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 2/10 A, Vcc=12.6-20 V
Package	DSO-36
Features	DESAT, EN, FAULT-RPT, OCP, SEP-GND, SD-SOFT, SRC, TLTO, UVLO, UL, VDE
Switch Type	IGBT, MOSFET
Similar Products	Family: 1ED-SRC



Functional Unit	Hydraulic Pump Inverter/EPS Motor	Motor Inverter
Voltage Range	48 V...300 V	48 V...300 V
Power Range	<15 kW	<15 kW
Switch Types	IGBT/MOSFET	IGBT/MOSFET

Recommended Products		
Product 1	IRS2186(4)	2ED2110S06M
Description	600 V High and Low Side Gate Driver IC	650 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 9.8-20 V	JI, HS+LS, 2.5/2.5 A, Vcc= 9.6-20 V
Package	DSO-14, DIP-14, DSO-8, DIP-8, CHIP	DSO-16 300mil
Features	SEP-GND, UVLO, IND-STND	SEP-GND, SD, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products		Family: SOI gate driver ICs
Product 2	IRS21271	IRS21271
Description	600 V Single High-Side Gate Driver IC	600 V Single High-Side Gate Driver IC
Key Attributes	JI, 1HS, 0.29/0.6 A, Vcc= 11.8-20 V	JI, 1HS, 0.29/0.6 A, Vcc= 11.8-20 V
Package	DSO-8, DIP-8, CHIP	DSO-8, DIP-8, CHIP
Features	FAULT-RPT, OCP, UVLO	FAULT-RPT, OCP, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IRS21271	Family: IRS21271
Product 3	2EDL23I06PJ	2EDL23I06PJ
Description	600 V Half-Bridge Gate Drive IC	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V
Package	DSO-14	DSO-14
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO
Switch Type	IGBT	IGBT
Similar Products	Family: 2EDL23N06PJ	Family: 2EDL23N06PJ
Product 4	1EDI60N12AF	1EDI60N12AF
Description	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 10-35 V	CT, 1HS, 10/9.4 A, Vcc= 10-35 V
Package	DSO-8	DSO-8
Features	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO
Switch Type	GaN, MOSFET, SiC MOSFET	GaN, MOSFET, SiC MOSFET
Similar Products	Family: 1ED Compact	Family: 1ED Compact

Sewing Machine (Commercial)

Functional Unit	Motor Inverter
Voltage Range	<400 V
Power Range	<3 kW
Switch Types	IGBT

Recommended Products	
Product 1	6EDL04I06PT
Description	600 V 3-Phase Gate Drive IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V
Package	DSO-28 300mil
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	IGBT
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	IRS2334
Description	600 V 3-Phase Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 11.6-20 V
Package	DSO-20 300mil, VQFN-28
Features	UVLO, IND-STND
Switch Type	IGBT

Functional Unit	Battery DC-DC	Battery DC-DC	Mains Inverter	Mains Inverter	Mains Inverter	PFC/SMPS	Active Bridge Rectifier
Voltage Range	<400 V		<400 V	600 V	600 V	600 V	600 V
Power Range	<3.5 kW	<100 kW	<3.5 kVA	<5 kVA	<100 kVA	<3.5 kW	<100 kVA
Switch Types	IGBT/MOSFET	IGBT/MOSFET	IGBT	IGBT	IGBT	IGBT	IGBT
Recommended Products							
Product 1	2EDL05N06PJ	1EDI60N12AF	1EDI60I12AF	1EDI60I12AF	1EDI60I12AF	1ED44176N01F	2ED020I12-F2
Description	600 V Half-Bridge Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC	1200 V Dual High-Side Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	CT, 1HS, 10/9.4 A, Vcc= 10-35 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	CT, 2HS, 2/2 A, Vcc= 12.6-20 V
Package	DSO-14	DSO-8	DSO-8	DSO-8	DSO-8	DSO-8	DSO-36
Features	BSD, STP, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	OCF, FAULT, EN, UVLO	DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	MOSFET	GaN, MOSFET, SIC MOSFET	IGBT	IGBT	IGBT	IGBT, MOSFET	IGBT, SIC MOSFET
Similar Products	Family: 2EDL (IGBT available)	Family: 1ED Compact	Family: 1ED Compact	Family: 1ED Compact	Family: 1ED Compact		Family: 1ED/2ED-F2
Product 2	2EDL23N06PJ		2EDL23I06PJ	IR2114SS	1ED3124MU12H	IRS4427	1ED3122MU12H
Description	600 V Half-Bridge Gate Driver IC		600 V Half-Bridge Gate Driver IC	600 V Half-Bridge Gate Driver IC	2300 V Single High-Side Gate Driver IC	25 V Dual Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 9.9-17.5 V		SOI, HB, 2.3/2.8 A, Vcc= 13.2-17.5 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	CT, 1HS, 10/9 A, Vcc= 10-35 V
Package	DSO-14		DSO-14	SSOP-24	DSO-8 300mil	DSO-8, DIP-8	DSO-8 300mil
Features	EN, FAULT-RPT, BSD, OCF, SEP-GND, STP, UVLO		EN, FAULT-RPT, BSD, OCF, SEP-GND, STP, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	SEP-OUT, SEP-GND, UVLO, UL	Vout 6-20 V	CLAMP, SEP-GND, UVLO, UL
Switch Type	MOSFET		IGBT	IGBT, MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET	IGBT, MOSFET, SIC MOSFET
Similar Products	Family: 2EDL23I06PJ		Family: 2EDL23N06PJ	Family: IR2214SS	Family: X3 Compact	Family: IRS4426, IRS4428, IRS44262	Family: X3 Compact
Product 3	1EDI20N12AF		2ED2106S06F	1EDI20I12MF	1ED3491MU12M	IRS44273L	1ED3491MU12M
Description	1200 V Single High-Side Gate Driver IC		650 V High and Low Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 10-35 V		SOI, HS+LS, 0.29/0.7 A, Vcc= 10-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-8		DSO-8	DSO-8	DSO-16 300mil	SOT23-5	DSO-16 300mil
Features	SEP-GND, SEP-OUT, UVLO		UVLO	CLAMP, SEP-GND, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL	UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	GaN, MOSFET, SIC MOSFET		IGBT, MOSFET	IGBT, SIC MOSFET	IGBT, SIC MOSFET	IGBT, MOSFET	IGBT, SIC MOSFET
Similar Products	Family: 1ED Compact		Family: SOI gate driver ICs	Family: 1ED Compact	Family: X3 Analog	Family: IR44273L, IR44272L	Family: X3 Analog
Product 4			1EDI20I12MF	1ED3124MU12H	2ED020I12-F2	2EDN8524F	1ED3124MU12H
Description			1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	1200 V Dual High-Side Gate Driver IC	20 V Dual Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes			CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	CT, 2HS, 2/2 A, Vcc= 12.6-20 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package			DSO-8	DSO-8 300mil	DSO-36	DSO-8	DSO-8 300mil
Features			CLAMP, SEP-GND, UVLO	SEP-OUT, SEP-GND, UVLO, UL	DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	EN, UVLO	SEP-OUT, SEP-GND, UVLO, UL
Switch Type			IGBT, SIC MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, SIC MOSFET	GaN, IGBT, MOSFET	IGBT, MOSFET, SIC MOSFET
Similar Products			Family: 1ED Compact	Family: X3 Compact	Family: 1ED/2ED-F2	Family: 2EDN	Family: X3 Compact

Functional Unit	PFC	DC-DC	DC-DC
Voltage Range	<3 kW	<3 kW	
Power Range			
Switch Types			Pulse Transformer

New

Recommended Products			
Product 1	1ED44176N01F	1EDI20I12AF	2EDN8524F
Description	25 V Single Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	20 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V
Package	DSO-8	DSO-8	DSO-8
Features	OCF, FAULT, EN, UVLO	SEP-GND, SEP-OUT, UVLO	EN, UVLO
Switch Type	IGBT, MOSFET	IGBT	GaN, IGBT, MOSFET
Similar Products		Family: 1ED Compact	Family: 2EDN
Product 2	IRS4427	1EDI60I12AF	1ED44176N01F
Description	25 V Dual Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	25 V Single Low-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V
Package	DSO-8, DIP-8	DSO-8	DSO-8
Features	Vout 6-20 V	SEP-GND, SEP-OUT, UVLO	OCF, FAULT, EN, UVLO
Switch Type	IGBT, MOSFET	IGBT	IGBT, MOSFET
Similar Products	Family: IRS4426, IRS4428, IRS44262	Family: 1ED Compact	
Product 3	IRS44273L		IRS4427
Description	25 V Single Low-Side Gate Driver IC		25 V Dual Low-Side Gate Driver IC
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V		NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V
Package	SOT23-5		DSO-8, DIP-8
Features	UVLO		Vout 6-20 V
Switch Type	IGBT, MOSFET		IGBT, MOSFET
Similar Products	Family: IR44273L, IR44272L		Family: IRS4426, IRS4428, IRS44262
Product 4	1EDI20I12AF		IRS44273L
Description	1200 V Single High-Side Gate Driver IC		25 V Single Low-Side Gate Driver IC
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V		NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V
Package	DSO-8		SOT23-5
Features	SEP-GND, SEP-OUT, UVLO		UVLO
Switch Type	IGBT		IGBT, MOSFET
Similar Products	Family: 1ED Compact		Family: IR44273L, IR44272L
Product 5	1EDN8511B		
Description	20 V Single Low-Side Gate Driver IC		
Key Attributes	NISO, 1LS, 4/8 A, Vcc= 8.6-20 V		
Package	SOT23-6		
Features	EN, SEP-OUT, UVLO		
Switch Type	GaN, IGBT, MOSFET		
Similar Products	Family: 1EDN		



Mobility

Functional Unit	Motor Inverter
Voltage Range	
Power Range	<200 kW
Switch Types	IGBT

New

Recommended Products	
Product 1	1ED3491MU12M
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-16 300mil
Features	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	IGBT, SiC MOSFET
Similar Products	Family: X3 Analog
Product 2	1ED3124MU12H
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package	DSO-8 300mil
Features	SEP-OUT, SEP-GND, UVLO, UL
Switch Type	IGBT, MOSFET, SiC MOSFET
Similar Products	Family: X3 Compact
Product 3	1EDI60112AF
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V
Package	DSO-8
Features	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT
Similar Products	Family: 1ED Compact
Product 4	2ED020112-F2
Description	1200 V Dual High-Side Gate Driver IC
Key Attributes	CT, 2HS, 2/2 A, Vcc= 12.6-20 V
Package	DSO-36
Features	DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, SiC MOSFET
Similar Products	Family: 1ED/2ED-F2
Product 5	IR2214SS
Description	1200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 2/3 A, Vcc= 11.4-20 V
Package	SSTOP-24
Features	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2114SS



Functional Unit	E-Bike Motor Inverter
Voltage Range	<100 V
Power Range	<700 W
Switch Types	MOSFET

Recommended Products	
Product 1	IRS2007S
Description	200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 0.29/0.6 A, Vcc= 9.8-20 V
Package	DSO-8
Features	UVLO, BSD, DT-PROG
Switch Type	MOSFET
Similar Products	Family: IRS200x

Product 2	6EDL04N02P
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL

Product 3	IRS21867S
Description	600 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 4/4 A, Vcc= 6.66-20 V
Package	DSO-8
Features	UVLO, IND-STND
Switch Type	IGBT, MOSFET

Product 4	2EDL23N06PJ
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 9.9-17.5 V
Package	DSO-14
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL23I06PJ



EV Charger/ Battery Charger

Functional Unit	DC-DC	DC-DC	DC-DC	PFC	HB (LLC)	Sync-Buck
Voltage Range	400 V	540 V	540 V	<450 V	<450 V	<200 V
Power Range	< 3kW	<5 kW	<8 kW	<6.6 kW	<6.6 kW	<6.6 kW
Switch Types	IGBT/MOSFET	IGBT	IGBT	IGBT/MOSFET	IGBT/MOSFET	MOSFET

Recommended Products						
Product 1	1ED160N12AF	1ED12012AF	1ED16012AF	2ED24417N01F	1ED16012AF	IR2010
Description	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	24 V Dual Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	200 V High and Low Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 10-35 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	NISO, 2LS, 10/10 A, Vcc = 12-24 V	CT, 1HS, 10/9.4 A, Vcc= 12.7-35 V	J1, HS+LS, 3/3 A, Vcc= 9.7-20 V
Package	DSO-8	DSO-8	DSO-8	DSO-8 with power pad	DSO-8	DSO-16 300mil, DIP-14
Features	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	EN, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-GND, SD, UVLO
Switch Type	GaN, MOSFET, SiC MOSFET	IGBT	IGBT	IGBT	IGBT	IGBT, MOSFET
Similar Products	Family: 1ED Compact	Family: 1ED Compact	Family: 1ED Compact	Family: low-side gate drives	Family: 1ED Compact	
Product 2	2ED2110S06M	IR2214SS	IR2214SS	1ED44176N01F	1ED3124MU12H	1ED120N12AF
Description	650 V High and Low Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC	25 V Single Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	J1, HS+LS, 2.5/2.5 A, Vcc= 9.6-20 V	J1, HB, 2/3 A, Vcc= 11.4-20 V	J1, HB, 2/3 A, Vcc= 11.4-20 V	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	CT, 1HS, 4/3.5 A, Vcc= 10-35 V
Package	DSO-16 300mil	SSTOP-24	SSTOP-24	DSO-8	DSO-8 300mil	DSO-8
Features	SEP-GND, SD, UVLO, IND-STND	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	OCF, FAULT, EN, UVLO	SEP-OUT, SEP-GND, UVLO, UL	SEP-GND, SEP-OUT, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET, SiC MOSFET	GaN, MOSFET, SiC MOSFET
Similar Products	Family: IRS2110	Family: IR2114SS	Family: IR2114SS		Family: X3 Compact	Family: 1ED Compact
Product 3	IRS2186(4)	1ED12012MF	1ED3124MU12H	IRS4427	1ED3122MU12H	
Description	600 V High and Low Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	25 V Dual Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	
Key Attributes	J1, HS+LS, 4/4 A, Vcc= 9.8-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	CT, 1HS, 10/9 A, Vcc= 10-35 V	
Package	DSO-14, DIP-14, DSO-8, DIP-8, CHIP	DSO-8	DSO-8 300mil	DSO-8, DIP-8	DSO-8 300mil	
Features	SEP-GND, UVLO, IND-STND	CLAMP, SEP-GND, UVLO	SEP-OUT, SEP-GND, UVLO, UL	Vout 6-20 V	CLAMP, SEP-GND, UVLO, UL	
Switch Type	IGBT, MOSFET	IGBT, SiC MOSFET	IGBT, MOSFET, SiC MOSFET	IGBT, MOSFET	IGBT, MOSFET, SiC MOSFET	
Similar Products		Family: 1ED Compact	Family: X3 Compact	Family: IRS4426, IRS4428, IRS44262	Family: X3 Compact	
Product 4			1ED13012MF	2EDN8524F	1ED12012MF	
Description			1200 V Single High-Side Gate Driver IC	20 V Dual Low-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	
Key Attributes			CT, 1HS, 5.9/6.2 A, Vcc= 12.7-18 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	
Package			DSO-8	DSO-8	DSO-8	
Features			CLAMP, SEP-GND, UVLO	EN, UVLO	CLAMP, SEP-GND, UVLO	
Switch Type			IGBT	GaN, IGBT, MOSFET	IGBT, SiC MOSFET	
Similar Products			Family: 1ED Compact	Family: 2EDN	Family: 1ED Compact	
Product 5			2ED02012-F2	1ED120N12AF	1ED3491MU12M	
Description			1200 V Dual High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	
Key Attributes			CT, 2HS, 2/2 A, Vcc= 12.6-20 V	CT, 1HS, 4/3.5 A, Vcc= 10-35 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V	
Package			DSO-36	DSO-8	DSO-16 300mil	
Features			DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO	SEP-GND, SEP-OUT, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL	
Switch Type			IGBT, SiC MOSFET	GaN, MOSFET, SiC MOSFET	IGBT, SiC MOSFET	
Similar Products			Family: 1ED/2ED-F2	Family: 1ED Compact	Family: X3 Analog	

Functional Unit	Motor Inverter
Voltage Range	
Power Range	<20 kW
Switch Types	MOSFET/IGBT

New

Recommended Products	
Product 1	1ED3491MU12M
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-16 300mil
Features	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	IGBT, SiC MOSFET
Similar Products	Family: X3 Analog
Product 2	IR2214SS
Description	1200 V Half-Bridge Gate Driver IC
Key Attributes	JI, HB, 2/3 A, Vcc= 11.4-20 V
Package	SSTOP-24
Features	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2114SS
Product 3	IR2213
Description	1200 V High and Low Side Gate Driver IC
Key Attributes	JI, HS+LS, 2/2.5 A, Vcc= 11.7-20 V
Package	DSO-16 300mil, DIP-14, CHIP
Features	SEP-GND, SD, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Product 4	IR2235
Description	1200 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V
Package	DSO-28 300mil, DIP-28, LCC-32
Features	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO
Switch Type	IGBT
Similar Products	Family: IR2233, IR2133, IR2135
Product 5	1ED3124MU12H
Description	2300 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package	DSO-8 300mil
Features	SEP-OUT, SEP-GND, UVLO, UL
Switch Type	IGBT, MOSFET, SiC MOSFET
Similar Products	Family: X3 Compact



Functional Unit	LEV motor Inverter
Voltage Range	<144 V
Power Range	<10 kW
Switch Types	MOSFET

New

Recommended Products	
Product 1	6EDL04N02PR
Description	200 V 3-Phase Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 9.8-17.5 V
Package	TSSOP-28
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO
Switch Type	MOSFET
Similar Products	Family: 6EDL
Product 2	IR2136
Description	600 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND
Switch Type	IGBT, MOSFET
Similar Products	Family: IR2136x
Product 3	2EDL05N06PF
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V
Package	DSO-8
Features	BSD, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL
Product 4	IRS2127
Description	600 V Single High-Side Gate Driver IC
Key Attributes	JI, 1HS, 0.29/0.6 A, Vcc= 11.8-20 V
Package	DSO-8, DIP-8, CHIP
Features	FAULT-RPT, OCP, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: IRS21271
Product 5	1EDI60N12AF
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 10/9.4 A, Vcc= 10-35 V
Package	DSO-8
Features	SEP-GND, SEP-OUT, UVLO
Switch Type	GaN, MOSFET, SIC MOSFET
Similar Products	Family: 1ED Compact



Functional Unit	SEV Motor Inverter
Voltage Range	
Power Range	<3 kW
Switch Types	MOSFET



New

Recommended Products	
Product 1	IR2235
Description	1200 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V
Package	DSO-28 300mil, DIP-28, LCC-32
Features	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO
Switch Type	IGBT
Similar Products	Family: IR2233, IR2133, IR2135
Product 2	2ED2183S06F
Description	650 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 2.5/2.5 A, Vcc= 10-20 V
Package	DSO-8, DSO-14
Features	STP, UVLO
Switch Type	IGBT, MOSFET
Similar Products	Family: SOI gate driver ICs
Product 3	2EDL23N06PJ
Description	600 V Half-Bridge Gate Drive IC
Key Attributes	SOI, HB, 2.3/2.8 A, Vcc= 9.9-17.5 V
Package	DSO-14
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, STP, UVLO
Switch Type	MOSFET
Similar Products	Family: 2EDL23I06PJ
Product 4	1EDI20N12AF
Description	1200 V Single High-Side Gate Driver IC
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 10-35 V
Package	DSO-8
Features	SEP-GND, SEP-OUT, UVLO
Switch Type	GaN, MOSFET, SiC MOSFET
Similar Products	Family: 1ED Compact



Renewable Energy

Heat Pumps

Functional Unit	Pump Inverter	Pump Inverter	Pump Inverter
Voltage Range	<400 V	<800 V	<800 V
Power Range	<2 kW	<3 kW	>3 kW
Switch Types	IGBT	IGBT	IGBT

Recommended Products

Product 1	6EDL04I06XT	IR2214SS	IR2214SS
Description	600 V 3-Phase Gate Drive IC	1200 V Half-Bridge Gate Driver IC	1200 V Half-Bridge Gate Driver IC
Key Attributes	SOI, 3PH, 0.165/0.375 A, Vcc= 12.5-17.5 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V
Package	DSO-28 300mil	SSTOP-24	SSTOP-24
Features	EN, FAULT-RPT, BSD, OCP, SEP-GND, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO
Switch Type	IGBT	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: 6EDL	Family: IR2114SS	Family: IR2114SS
Product 2	IR2136	IR2213	IR2213
Description	600 V 3-Phase Half-Bridge Gate Driver IC	1200 V High and Low Side Gate Driver IC	1200 V High and Low Side Gate Driver IC
Key Attributes	JI, 3PH, 0.2/0.35 A, Vcc= 9.8-20 V	JI, HS+LS, 2/2.5 A, Vcc= 11.7-20 V	JI, HS+LS, 2/2.5 A, Vcc= 11.7-20 V
Package	DSO-28 300mil, DIP-28, LCC-32, CHIP	DSO-16 300mil, DIP-14, CHIP	DSO-16 300mil, DIP-14, CHIP
Features	EN, FAULT-RPT, OCP, SEP-GND, UVLO, IND-STND	SEP-GND, SD, UVLO, IND-STND	SEP-GND, SD, UVLO, IND-STND
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET
Similar Products	Family: IR2136x		
Product 3	2ED2304S06F	IR2235	IR2235
Description	650 V Half-Bridge Gate Driver IC	1200 V 3-Phase Half-Bridge Gate Driver IC	1200 V 3-Phase Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V
Package	DSO-8	DSO-28 300mil, DIP-28, LCC-32	DSO-28 300mil, DIP-28, LCC-32
Features	BSD, STP, UVLO	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO	OPAMP, FAULT-RPT, OCP, SEP-GND, SD, UVLO
Switch Type	IGBT, MOSFET	IGBT	IGBT
Similar Products	Family: SOI gate driver ICs	Family: IR2233, IR2133, IR2135	Family: IR2233, IR2133, IR2135
Product 4	2EDL05I06PF	1ED20I12AF	2ED020I12-FI
Description	600 V Half-Bridge Gate Drive IC	1200 V Single High-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC
Key Attributes	SOI, HB, 0.36/0.7 A, Vcc= 13.2-17.5 V	CT, 1HS, 4/3.5 A, Vcc= 12.7-35 V	CT, HB, 1.5/2.5 A, Vcc= 13.5-18 V
Package	DSO-8	DSO-8	DSO-18
Features	BSD, STP, UVLO	SEP-GND, SEP-OUT, UVLO	CMP, OPAMP, STP, SD, UVLO
Switch Type	IGBT	IGBT	IGBT, MOSFET
Similar Products	Family: 2EDL	Family: 1ED Compact	Family: 2ED-FI
Product 5		1ED3124MU12H	1ED3491MU12M
Description		2300 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes		CT, 1HS, 14/13.5 A, Vcc= 10-35 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package		DSO-8 300mil	DSO-16 300mil
Features		SEP-OUT, SEP-GND, UVLO, UL	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type		IGBT, MOSFET, SIC MOSFET	IGBT, SIC MOSFET
Similar Products		Family: X3 Compact	Family: X3 Analog



Solar Inverter



Functional Unit	µinverter Boost	µinverter DC-AC	String Boost	String DC-AC	Central Boost/SMPS	Central DC-AC
Voltage Range	<400 V	<400 V	<400 V	>400 V	>400 V	>400 V
Power Range	<200 W	<200 W	<3.5 kW	<3.5 kW	>3.5 kW	>3.5 kW
Switch Types	MOSFET	MOSFET	MOSFET	MOSFET	SIC/IGBT	SIC/IGBT

New

Recommended Products						
Product 1	1ED44176N01F	2ED2304506F	2EDN8524F	IR2235	2EDN8524F	1ED3491MU12M
Description	25 V Single Low-Side Gate Driver IC	650 V Half-Bridge Gate Driver IC	20 V Dual Low-Side Gate Driver IC	1200 V 3-Phase Half-Bridge Gate Driver IC	20 V Dual Low-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes	NISO, 1LS, 0.8/1.75 A, Vcc=12.7-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	JI, 3PH, 0.25/0.5 A, Vcc= 11.6-20 V	NISO, 2LS, 5/5 A, Vcc= 8.6-20 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V
Package	DSO-8	DSO-8	DSO-8	DSO-28 300mil, DIP-28, LCC-32	DSO-8	DSO-16 300mil
Features	OCF, FAULT, EN, UVLO	BSD, STP, UVLO	EN, UVLO	OPAMP, FAULT-RPT, OCF, SEP-GND, SD, UVLO	EN, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL
Switch Type	IGBT, MOSFET	IGBT, MOSFET	GaN, IGBT, MOSFET	IGBT	GaN, IGBT, MOSFET	IGBT, SIC MOSFET
Similar Products		Family: SOI gate driver ICs	Family: 2EDN	Family: IR2233, IR2133, IR2135	Family: 2EDN	Family: X3 Analog

Product 2	IRS4427	IR2114SS	IRS4427	2ED2106S06F	1EDI60N12AF	1ED020I12-F2
Description	25 V Dual Low-Side Gate Driver IC	600 V Half-Bridge Gate Driver IC	25 V Dual Low-Side Gate Driver IC	650 V High and Low Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC
Key Attributes	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	JI, HB, 2/3 A, Vcc= 11.4-20 V	NISO, 2LS, 2.3/3.3 A, Vcc= 6-20 V	SOI, HS+LS, 0.29/0.7 A, Vcc= 10-20 V	CT, 1HS, 10/9.4 A, Vcc= 10-35 V	CT, 1HS, 2/2 A, Vcc= 12.6-20 V
Package	DSO-8, DIP-8	SSOP-24	DSO-8, DIP-8	DSO-8	DSO-8	DSO-16 300mil
Features	Vout 6-20 V	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO	Vout 6-20 V	UVLO	SEP-GND, SEP-OUT, UVLO	CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO
Switch Type	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	IGBT, MOSFET	GaN, MOSFET, SIC MOSFET	IGBT, SIC MOSFET
Similar Products	Family: IRS4426, IRS4428, IRS44262	Family: IR2214SS	Family: IRS4426, IRS4428, IRS44262	Family: SOI gate driver ICs	Family: 1ED Compact	Family: 1ED/2ED-F2

Product 3	IRS44273L	2EDL05N06PJ	1EDI60N12AF	1ED3491MU12M	1ED3124MU12H	IR2214SS
Description	25 V Single Low-Side Gate Driver IC	600 V Half-Bridge Gate Drive IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	1200 V Half-Bridge Gate Driver IC
Key Attributes	NISO, 1LS, 1.5/1.5 A, Vcc= 11.2-20 V	SOI, HB, 0.36/0.7 A, Vcc= 9.9-17.5 V	CT, 1HS, 10/9.4 A, Vcc= 10-35 V	CT, 1HS, 11/7.5 A, Vcc= 13-35 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	JI, HB, 2/3 A, Vcc= 11.4-20 V
Package	SO23-5	DSO-14	DSO-8	DSO-16 300mil	DSO-8 300mil	SSOP-24
Features	UVLO	BSD, STP, UVLO	SEP-GND, SEP-OUT, UVLO	Configurability, CLAMP, DESAT, FAULT-RPT, FAULT-RST, SEP-GND, UVLO, UL	SEP-OUT, SEP-GND, UVLO, UL	DESAT, FAULT-RPT, SEP-GND, STP, SD-SOFT, UVLO
Switch Type	IGBT, MOSFET	MOSFET	GaN, MOSFET, SIC MOSFET	IGBT, SIC MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET
Similar Products	Family: IR44273L, IR44272L	Family: 2EDL	Family: 1ED Compact	Family: X3 Analog	Family: X3 Compact	Family: IR2214SS

Product 4	1EDI20N12AF	1EDI20N12AF	1ED3124MU12H	1ED3122MU12H	IR2213
Description	1200 V Single High-Side Gate Driver IC	1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC	1200 V High and Low Side Gate Driver IC
Key Attributes	CT, 1HS, 4/3.5 A, Vcc= 10-35 V	CT, 1HS, 4/3.5 A, Vcc= 10-35 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V	CT, 1HS, 10/9 A, Vcc= 10-35 V	JI, HS+LS, 2/2.5 A, Vcc= 11.7-20 V
Package	DSO-8	DSO-8	DSO-8 300mil	DSO-8 300mil	DSO-16 300mil, DIP-14, CHIP
Features	SEP-GND, SEP-OUT, UVLO	SEP-GND, SEP-OUT, UVLO	SEP-OUT, SEP-GND, UVLO, UL	CLAMP, SEP-GND, UVLO, UL	SEP-GND, SD, UVLO, IND-STND
Switch Type	GaN, MOSFET, SIC MOSFET	GaN, MOSFET, SIC MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET, SIC MOSFET	IGBT, MOSFET
Similar Products	Family: 1ED Compact	Family: 1ED Compact	Family: X3 Compact	Family: X3 Compact	

Product 5				1EDI20I12MF	1ED3124MU12H
Description				1200 V Single High-Side Gate Driver IC	2300 V Single High-Side Gate Driver IC
Key Attributes				CT, 1HS, 4/3.5 A, Vcc= 12.7-18 V	CT, 1HS, 14/13.5 A, Vcc= 10-35 V
Package				DSO-8	DSO-8 300mil
Features				CLAMP, SEP-GND, UVLO	SEP-OUT, SEP-GND, UVLO, UL
Switch Type				IGBT, SIC MOSFET	IGBT, MOSFET, SIC MOSFET
Similar Products				Family: 1ED Compact	Family: X3 Compact

Agenda

1 Manual & Technology, Configuration and Features

2 Application Areas

3 Recommended Products

4 **Products At A Glance**

5 Support Material

1ED44175N01B and 1ED44173N01B at-a-glance

1-channel low-side driver with integrated overcurrent protection

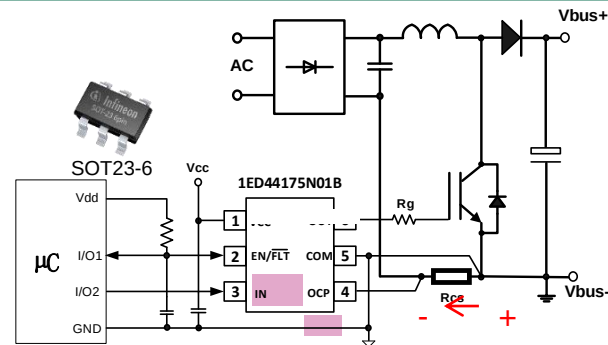
Features

- > [1ED44175N01B Datasheet](#) 
- > [1ED44173N01B Datasheet](#) 
- > **Over-current limit with minus voltage input**
- > **-0.246 V overcurrent protection threshold voltage with $\pm 5\%$ tolerance**
- > **Single pin for fault output and enable**
- > **Programmable fault clear time**
- > **25 V Max VCC supply voltage**
- > Under voltage lockout (UVLO) protection for IGBTs (1ED44175) and MOSFETs (1ED44173)
- > CMOS Schmitt-triggered inputs
- > 3.3 V, 5 V and 15 V input logic compatible
- > Output in phase with input
- > **3 kV ESD HBM**

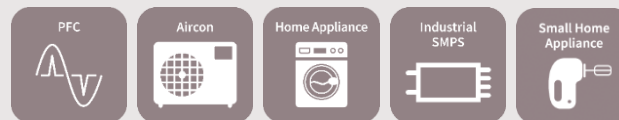
Key Specifications

	VCC Max	Io+/- Typ	UVLO Typ (on/off)	Prop. delay Typ (on/off)
1ED44175	25 V	2.6 A	11.9 / 11.4 V	50 ns
1ED44173			8 / 7.3 V	34 ns

Typical Connection Diagram



Typical Applications



General purpose low-side gate driver for single-ended topologies such as digitally controlled PFC

Available resources: [Datasheet](#), [Application Note](#),

Evaluation boards: [EVAL-1ED44175N01B](#),
[EVAL-1ED44173N01B](#)

Reference design: REF-Aircon-C302-IM564 (Coming soon)

Simulation: [PSPICE](#), [SiMetrix](#), [IFX designer](#)

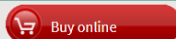


1ED44176N01F

1-channel low-side driver with integrated OCP and FLT/EN

Features

- › [1ED44176N01F Datasheet](#)
- › **Over-current detection with positive voltage input**
- › **0.5 V Over-current threshold with accurate $\pm 5\%$ tolerance**
- › **Single pin for fault output and enable**
- › **Programmable fault clear time**
- › **25 V Max VCC supply voltage**
- › Under voltage lockout
- › CMOS Schmitt-triggered inputs
- › 3.3 V, 5 V and 15 V input logic compatible
- › Output in phase with input
- › Separate logic and power ground
- › 2 kV ESD HBM

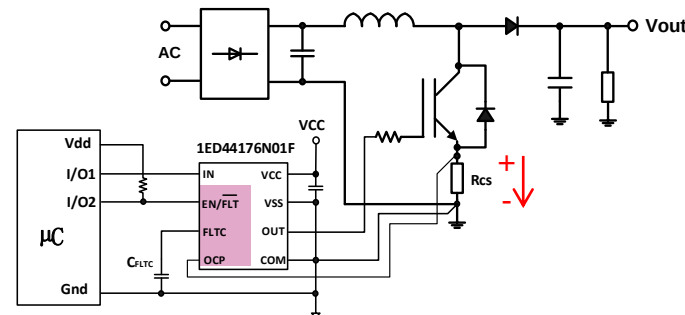


PG-DSO8

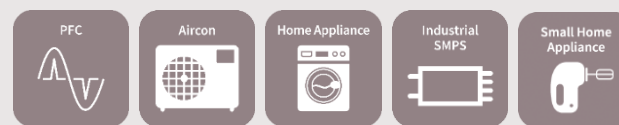
Key Specifications

Io+/- Typ	UVLO Typ (on/off)	Prop. delay Typ (on/off)
+0.8 / -1.75 A	11.9 / 11.4 V	50 ns

Typical Connection Diagram



Typical Applications



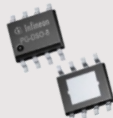
General purpose low-side gate driver for single-ended topologies such as digitally controlled PFC

Available resources: [Datasheet](#), [Application Note](#), [Evaluation Board](#)
Simulation: [PSPICE](#), [SiMetrix](#), [IFX designer](#)



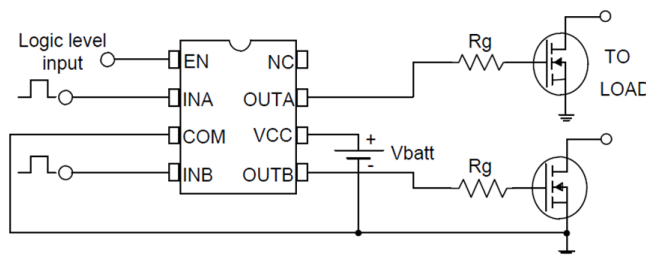
Features

- › **Typical drive capability: $I_{O+/-} = 10\text{ A}$**
- › 24 V maximum supply voltage
- › 11.5 V under voltage lockout
- › 55 ns maximum propagation delay
- › Enable function
- › Output in phase with input
- › 2 kV ESD HBM
- › **PSOIC8 package with thermal pad**



Available resources: [Datasheet](#),
[Application Note](#), [Evaluation Board](#)

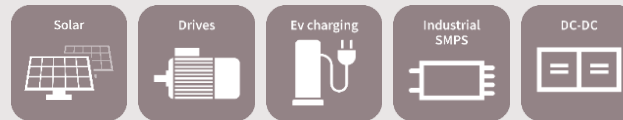
Schematic



Target Applications

Use-cases

- › Driving high power IGBTs
- › Driving >2 IGBT / MOSFETs in parallel
- › Transformer driver



IRS4428, IRS4427, IRS4426(2) at a glance

Dual channel low side drivers

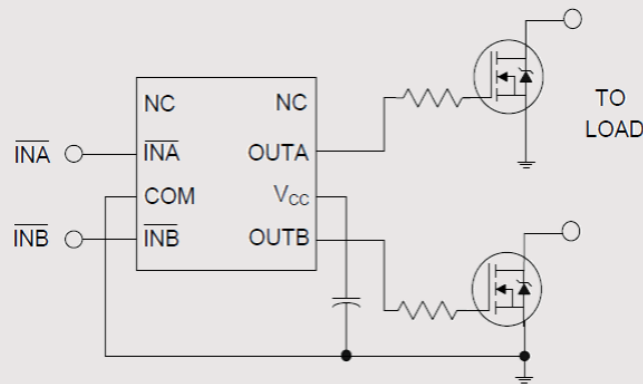
Key Features

- › **2.3 A / 3.3 A** typical source/sink current
- › Gate drive supply range (IRS4426, IRS4427)
 - **6 V to 20 V** (IRS4426, IRS4427)
 - **10.2 V to 20 V** (IRS44262)
- › **3.3 V** and **5 V** logic compatible
- › **50 ns/ 50 ns** typical propagation delay
- › Under-voltage lockout (IRS44262)
- › Two independent gate drivers
- › Matched propagation delay for both channels
- › Outputs in phase with inputs (IRS4427)
- › Outputs out of phase with inputs (IRS4426(2))

Typical Applications



Sample Schematic

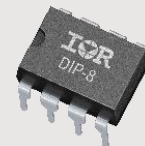


Value Proposition

- › Robust IC with increased device reliability
- › Various industry standard pin-out configurations enables easy, straight forward design for fast time to market



DSO-8



DIP-8

IRS44273L at-a-glance

Single Channel Low Side Driver

Key Features

- › [IRS44273L Datasheet](#)
- › **1.5 A** typical source/sink current:
- › **10 V** under voltage lockout (UVLO) protection
- › **50 ns** typical propagation delay
- › **25 ns** typical rise/fall times
- › CMOS Schmitt-triggered inputs
- › **3.3 V** logic compatible
- › Dual OUT pins for easy layout
- › Space saving and cost effective SOT23 package

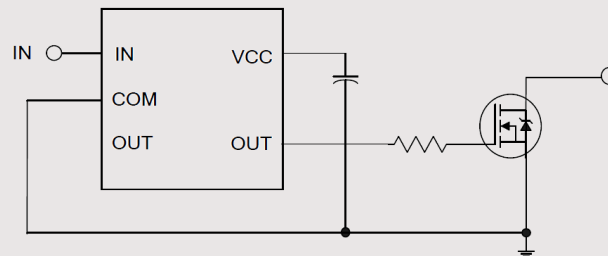


Typical Applications



***IR44252L, IR44272L, and IR44273 are discontinued. IRS44273L is the replacement**

Sample Schematics



Available resources: [IRS44273L Datasheet](#)

Evaluation board: [EVAL-M3-TS6-665PN](#)



1EDN EiceDriver™ family at a glance

Compatible, Strong, Precise, Rugged



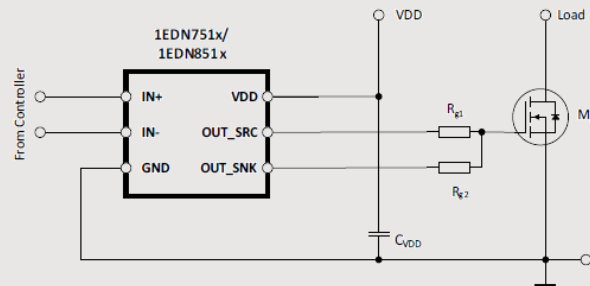
Key Features

- › Single channel low-side gate driver
- › Separate source/sink outputs
- › **4 A / 8 A** source/sink current
- › **6 ns / 5 ns** rise/fall times
- › **± 5 ns** propagation delay precision
- › **4 V** and **8 V** UVLO options
- › **19 ns** propagation delay
- › **-10 V** robustness of control
- › **5 A** reverse output current robustness
- › Industry standard packages and pinout
- › True rail-to-rail low impedance output stages

Typical Applications

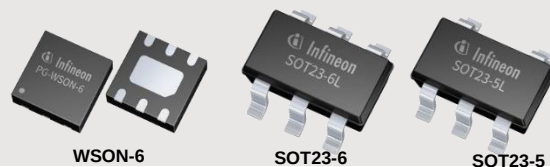


Sample Schematic



Value Proposition

- › High power efficiency
 - in hard switching PFC with SiC diode
 - in half-bridges and synchronous rectifications
- › Cooler driver IC operation
- › Instant MOSFET protection during start-up and under abnormal operation



2EDN MOSFET EiceDRIVER™ family at a glance

Rugged, Cool and Fast



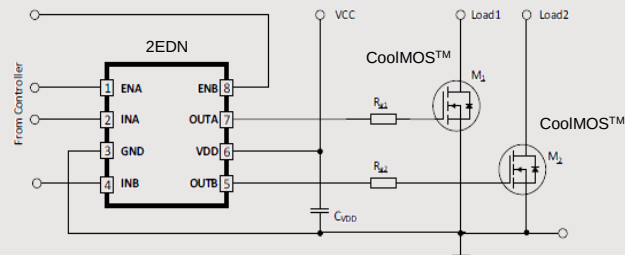
Key Features

- › **5 A** source/sink current
- › **5 ns** rise/fall times
- › **<10 ns** propagation delay precision
- › **4 V** and **8 V** UVLO options
- › **19 ns** propagation delay for both control and enable inputs
- › **-10 V** robustness of control and enable inputs
- › **5 A** reverse output current robustness
- › 2 independent channels
- › Excellent **1 ns** channel-to-channel accuracy
- › Industry standard pinout and packages

Typical Applications



Sample Schematic



Value Proposition

- › Cooler driver IC operation, higher drive capability
- › Instant MOSFET protection under abnormal operation
- › Crucial safety margin to drive pulse transformers
- › Increases power density and BOM savings

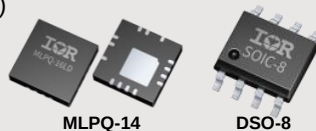


IRS2008, IRS2007, and IRS2005 at a glance

200 V high & low side and half bridge drivers

Key Features

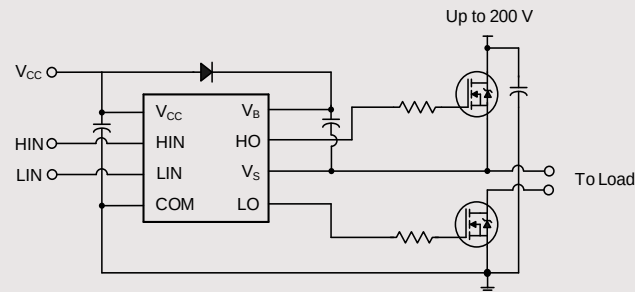
- › Datasheet: [IRS2005](#), [IRS2007](#), [IRS2008](#)
- › **200 V** gate driver family tailored for low voltage (24 V, 36 V, and 48 V) and mid voltage (60 V, 80 V and 100 V) motor drive applications
- › Maximum offset voltage **225 V**
- › **290 mA / 600 mA** typical source/sink current
- › **10 V** to **20 V** gate drive supply range
- › **3.3 V, 5 V, and 15 V** logic compatible
- › **8.9 / 8.2 V** under-voltage lockout protection
- › Interlocked (IRS2007, IRS2008)
- › Floating channel designed for bootstrap operation
- › Logic operational for VS of **-8 V**
- › Tolerant to negative transient voltage, dV/dt immune
- › Matched propagation delays
- › Shutdown input turns off both channels (IRS2008)



Part Number	Config.	Prop. Delay ton/off typ. (ns)	Deadtime typ. (ns)	Control Inputs	Package
IRS2008	HB	680/150	520	IN, SD	DSO-8, MLPQ-14
IRS2007	HB	160/150	520	HIN, /LIN	
IRS2005	HS+LS	160/150		HIN, LIN	

*IRS2001 is not recommended for new designs, IRS2005 replaces IRS2001. IRS2008 can replace IRS2004. IRS2007 can replace IRS2003.

Sample Schematic



Typical Applications



Available resources: [IRS2005](#), [IRS2007](#), [IRS2008](#) Datasheets

Evaluation board: [EVAL-PS-IRS200X](#)



6EDL04N02PR & 6ED003L02-F2 at-a-glance

Infineon SOI 200 V three-phase gate drivers

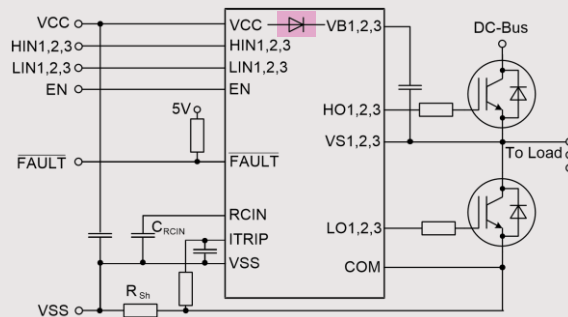
Key Features

- › [6EDL04N02PR Datasheet](#) 
- › [6ED003L02-F2 Datasheet](#) 
- › Uses Infineon silicon-on-insulator (**SOI**) technology increasing system reliability & robustness compared to JI technology
*see next slide
 - Lower level-shift losses
 - Integrated bootstrap diode (6EDL04N02)
 - Operation robustness of negative transient voltage at the VS pin (-VS)
- › Maximum offset voltage **200 V**
- › Over current protection with programmable fault clear time
- › Independent Under voltage lockout protection
- › Shoot-through (cross-conduction) protection
- › 'Shut down' of all switches during error conditions

Typical Applications



Sample Schematic



*only 6EDL04N02 integrates the bootstrap diode,
6ED003L02-F2 does not

Available resources: [6EDL04N02PR Datasheet](#)
[6ED003L02-F2 Datasheet](#), [Application Note](#)

Evaluation board: [EVAL-6EDL04N02PR](#)



TSSOP-28



Two integrated circuit packages are shown. On the left is a DSO-16 (WB) package, which is a square package with 16 pins. It features the Infineon logo and the text "DSO-16". On the right is a DIP-14 package, which is a rectangular package with 14 pins. It features the IQR logo and the text "DIP-14".

LV-drives

A white icon of a forklift on a dark grey background.

Simulation models

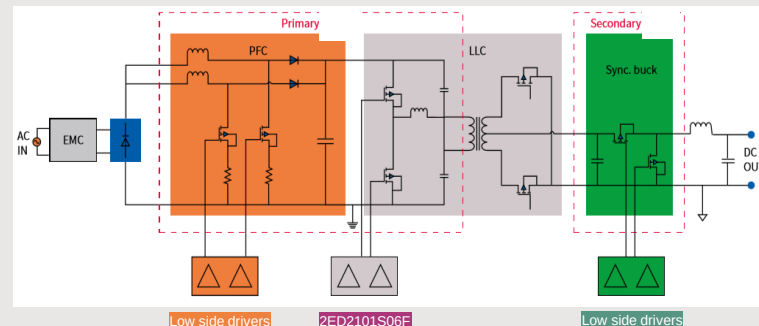
2ED2101S06F / 2ED2103S06F / 2ED2104S06F and 2ED2110S06M

650 V SOI Fast Level Shift Product Family

Key features

- › Infineon SOI technology fully operational up to **650 V offset voltage**
 - › **Bootstrap voltage** up to **675 V**
- › **90 ns propagation delay; 10 ns maximum delay matching**
- › **Negative VS transient voltage immunity: -100 V / 300 ns**
- › **Integrated ultra-fast, low R_{ON} bootstrap diode**
- › **2ED2101S06F (HS+LS) / 2ED2103S06F (HB) / 2ED2104S06F (HB)**
 - › I_{O+} / I_{O-} 290 mA / 700 mA source / sink peak drive currents (typical)
 - › DSO-8 package
- › **2ED2110S06M: High-side and Low-side driver** [DSO-16W package]
 - › I_{O+} / I_{O-} 2.5 A / 2.5 A source / sink peak drive currents (typical)
 - › Separate logic (VSS) and power ground (COM)
 - › Shutdown logic level input control pin
- › Symmetrical, independent, per channel under-voltage lockout (UVLO)
 - › 8.9 V / 8 V typical; 0.9V minimum hysteresis
- › 3.3 V, 5 V, 15 V compatible inputs with Schmitt trigger and hysteresis
- › **Supports maximum V_{CC} voltage of 25 V**
- › **Logic operational up to -11 V on VS pin**
- › **Switching frequencies up to 500 kHz**
- › **2 kV HBM ESD**
- › Form, fit, function compatible with IR(S)2101/3/4S and IR(S)2110/2113S

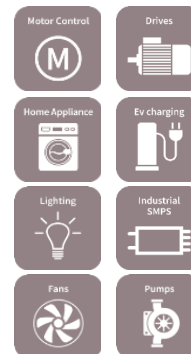
Sample circuit of HB-LLC resonant ZVS power conversion



Value proposition

- › Highest reliability and quickest time to market with **superior negative VS transient voltage immunity**
- › **Lower system level BOM cost** with integrated, monolithic bootstrap diode
- › Superior latch-up immunity and robustness with SOI
- › **Lower HB-LLC magnetic BOM cost**
 - › high frequency applications up to **500 kHz**
- › Robust IC with increased device reliability
- › Form, fit, function, **pin2pin**, and **electrically compatible with earlier GEN2 and GEN5 versions**

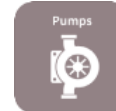
Applications



2ED210(6,8,9)S06F / 2ED210(6,8,9)4S06J overview

650 V half-bridge and HS+LS gate drivers [7 new devices]

Applications

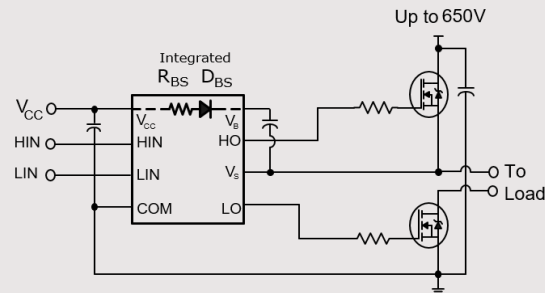


Key features

- › Infineon SOI technology fully operational up to **650 V offset voltage**
 - › **Bootstrap voltage** up to **675 V**
- › **Negative VS transient immunity of 100 V**
- › **Integrated** ultra-fast, low $R_{DS(on)}$ **bootstrap diode**
- › I_{O+} / I_{O-} 0.29 A / 0.7 A drive current (typical)
- › Independent, dual channel under voltage lockouts (UVLO)
- › **Supports maximum supply voltage of 25 V**
- › **Logic operational for V_S of -11 V**
- › Reduced level shift losses for switching **frequencies above 100 kHz**
- › Dual package options
 - › 2ED210(6,8,9)S06F: DSO-8 (SOIC-8)
 - › 2ED210(6,8,9)4S06J: DSO-14 (SOIC-14) with separate power and logic ground

Part Number	$I_{O+/-}$ typ. [mA]	$t_{ON/OFF}$ (typ) [ns]	MT (max) [ns]	$t_{r/f}$ (typ) [ns]	Pin compatibility
2ED210(6,8,9)S06F	290 / 700	200 / 200	35	100 / 35	IR210xS / IRS210xS
2ED210(6,8,9)4S06J	290 / 700			100 / 35	IR210x4S / IRS210x4S

Sample schematic



Value proposition

- › Highest reliability and quickest time to market with superior negative VS immunity
- › Lower system level BOM cost with integrated, monolithic bootstrap diode
- › Superior latch-up immunity with SOI
- › Simple, low-cost solution to drive MOSFETs or IGBTs up to 650 V
- › Reduced level shift losses, tailored for high frequency applications
- › Robust IC with increased device reliability
- › Form, fit, function, pin2pin, and electrically compatible with earlier generation drivers

2ED218xS06F / 2ED218x4S06J overview

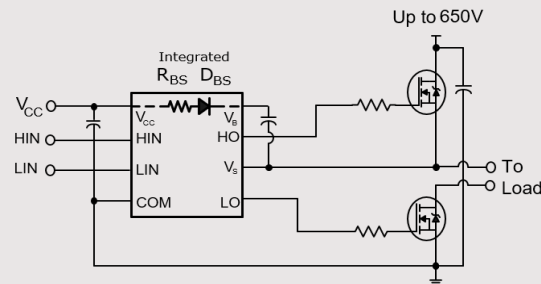
650 V half-bridge and HS+LS gate drivers [8 new devices]

Key features

- › Infineon SOI technology fully operational up to **650 V offset voltage**
 - › **Bootstrap voltage** up to **675 V**
- › **Negative VS transient immunity of 100 V**
- › **Integrated** ultra-fast, low $R_{DS(on)}$ **bootstrap diode**
- › I_{O+} / I_{O-} drive currents of **2.5 A / 2.5 A** (typical)
- › Independent, dual channel under voltage lockouts (UVLO)
- › Supports **maximum supply voltage of 25 V**
- › **Logic operational for V_S of -11 V**
- › Reduced level shift losses for switching **frequencies above 100 kHz**
- › Dual package options
 - › 2ED218xS06F: DSO-8 (SOIC-8)
 - › 2ED218xS06J: DSO-14 (SOIC-14) with separate power and logic ground

Part Number	$I_{O+/-}$ typ. [A]	$t_{ON/OFF}$ (typ) [ns]	MT (max) [ns]	$t_{r/f}$ (typ) [ns]	Pin compatibility
2ED218xS06F	2.5 / 2.5	200 / 200	60	15 / 15	IR218xS / IRS218xS
2ED218x4S06J	2.5 / 2.5			15 / 15	IR218x4S / IRS218x4S

Sample schematic



Value proposition

- › Highest reliability and quickest time to market with superior negative VS immunity
- › Lower BOM system level cost with integrated, monolithic bootstrap diode
- › Superior latch-up immunity with SOI
- › Simple, low-cost solution to drive MOSFETs or IGBTs up to 650 V
- › Reduced level shift losses, tailored for high frequency applications
- › Robust IC with increased device reliability
- › Form, fit, function, pin2pin, and electrically compatible with earlier generation drivers

Applications



 Buy online

A photograph of a single Infineon 2ED2304S06F MOSFET. The component is a small, black, square package with four silver-colored leads extending from the corners. The top surface of the package is printed with the Infineon logo, the part number '2ED2304S06F', and a small circular mark.

2ED28073J06F low current half bridge driver

Tailored for CoolMOS™ PFD7 for MHA applications

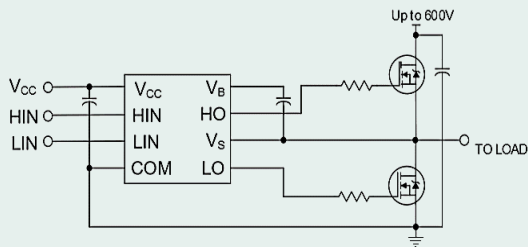
Key features

- › Specialized low current driver for **CoolMOS™ PFD7**
- › Integrated short pulse/noise rejection filter
- › Infineon J1 technology up to 600 V voltage
- › **Neg. VS transient immunity of 70 V**
- › **Integrated** ultra-fast, low $R_{DS(on)}$ **bootstrap FET**
- › I_{O+} / I_{O-} **+20 mA / -80 mA** drive current (typical)



EVAL_DRIVE_3PH_PFD7

Sample schematic

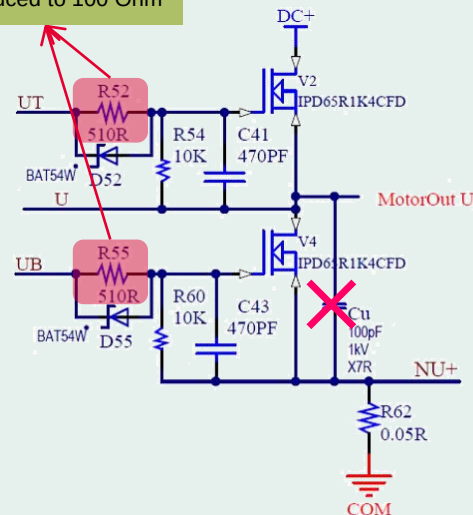


Value proposition

› System benefit

- › Low switching transients
- › Lower losses
- › Less components
- › lower BOM cost
- › High robustness and reliability

R_G reduced to 100 Ohm



Solution	R_G	C_{DS}	C_{GS}	dv/dt	SYS cost
IPD65R1K4CFD					
2ED28073J06F	100	none	0.47 nF	<1 V/ns	Low

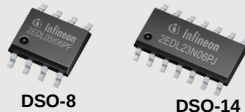


EiceDRIVER™ 2EDL Compact family at a glance

2EDL05x06x and 2EDL23x06x

Key Features

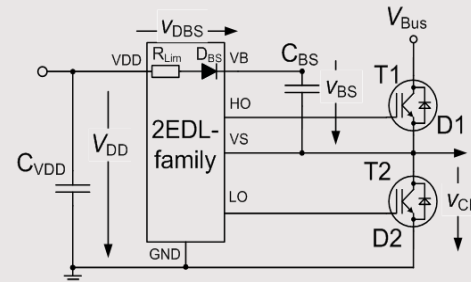
- › **600 V** level-shifting **SOI** half-bridge driver
- › Integrated low-resistive, ultrafast bootstrap diode
- › Specific undervoltage lockout levels for IGBT, OptiMOS™ and CoolMOS™
- › Efficient level-shifting up to **250 kHz**
- › 2EDL05x06x: half bridge driver with I_{o+} / I_{o-} 360 mA / 700 mA in DSO-8 package
- › 2EDL23x06x: half bridge driver with I_{o+} / I_{o-} 1.8 A / 2.5A, integrated over current protection, enable and fault-out in DSO-14 package



Typical Applications



Sample Schematic



Value Proposition

- › Insensitivity of the bridge output to negative transient voltages up to **-100 V** given by SOI-technology
- › Integrated bootstrap diode eliminates external bootstrap circuitry
- › Optimal controllability of application with dedicated UVLO
- › Reduced external components enables a simpler PCB layout and faster design-in

- › **220 mA / 480 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **500 ns** typical propagation delay
- › **300 ns** typical deadtime
- › Fully operational to **+600 V** offset voltage
- › Integrated bootstrap MOSFET
- › Undervoltage lockout for V_{CC} and V_{BS}
- › **3.3 V, 5 V, 15 V** input logic compatible
- › Tolerant to negative transient voltage, dV/dt immune
- › Minimum pulse input filter time (**300 ns**)
- › Logic operational for VS of **-8 V**
- › Operational for transient negative VS **-50 V** with a **50 ns** pulse width

- › Overcurrent protection, shutdown and fault reporting with adjustable fault clear timing
- › Integrated Bootstrap FET, Simple and low-cost solution to drive MOSFETs or IGBTs up to **600 V**
- › Daisy-chain multiple parts
- › Robust IC with increased device reliability
- › Easy to use for fast time to market



IRS210x(4) Family at a glance: 600 V, 290/600 mA Half-bridge and High and low side drivers

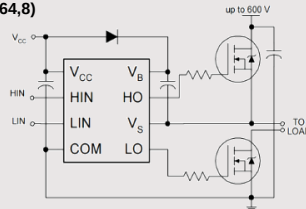
Key Features

- › **290 mA /600 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V, 5 V, and 15 V** logic compatible
- › Typical propagation delay
 - **160 ns /150 ns** (IRS2101)
 - **220 ns /200 ns** (IRS2106x ,IRS2108x))
 - **680 ns/150 ns** (IRS2103, IRS2104))
 - **750 ns/200 ns** (IRS2109x)
- › Under-voltage lockout
 - V_{CC} (IRS210(1-4))
 - V_{CC} & V_{BS} (IRS210(6-9))
- › Floating channel designed for bootstrap operation
- › Interlocked (IRS210(3,4,8x,9x))
- › Programmable dead time (IRS210x4, IRS21091)
- › Shutdown pin (IRS2104,IRS2109x)
- › Matched propagation delays
- › Outputs in phase with inputs

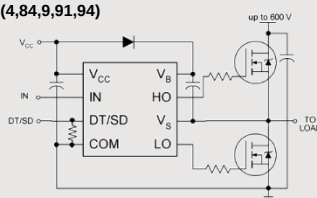


Sample Schematics

IR210(1,3,6,64,8)



IR210(4,84,9,91,94)



Value Proposition

- › Protection under abnormal operation
- › Robust IC with increased device reliability
- › Offered in 14-pin packages for better creepage/clearance
- › Various industry standard pin-out configurations enables easy, straight forward design

Typical Applications



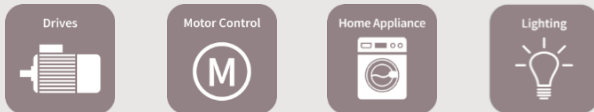
IRS211(0,3) at a glance

500 V and 600 V high and low side drivers

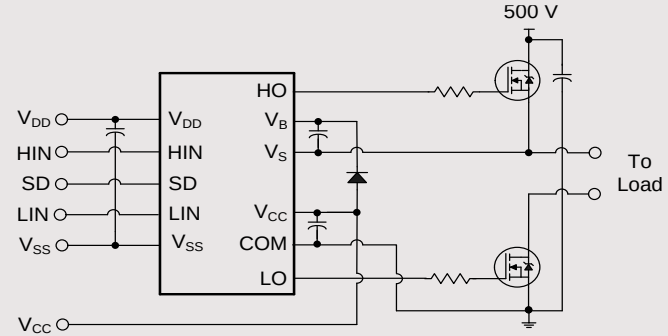
Key Features

- › **600 V** voltage class (IRS2113)
- › **500 V** voltage class (IRS2110)
- › **2 A** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V** logic compatible
- › **130 ns / 120 ns** Typical propagation delay
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Matched propagation delays
- › Shutdown input turns off both channels
- › Logic and power ground
- › Outputs in phase with inputs

Typical Applications



Sample Schematic



Value Proposition

- › Protection under abnormal operation
- › Robust IC with increased device reliability
- › Various industry standard pin-out configurations enables easy, straight forward design for fast time to market



IR211(0,3) at a glance

500 V and 600 V high and low side drivers

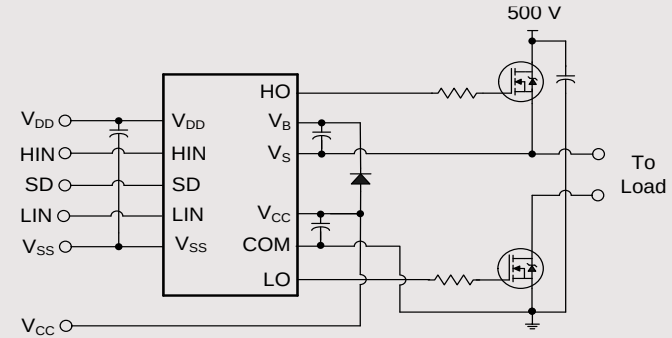
Key Features

- › **600 V** voltage class (IRS2113)
- › **500 V** voltage class (IRS2110)
- › **2 A** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V** logic compatible
- › **120 ns / 94 ns** Typical propagation delay
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Matched propagation delays
- › Shutdown input turns off both channels
- › Logic and power ground
- › Outputs in phase with inputs

Typical Applications



Sample Schematic



Value Proposition

- › Protection under abnormal operation
- › Robust IC with increased device reliability
- › Various industry standard pin-out configurations enables easy, straight forward design for fast time to market

DSO-16 (WB)



DIP-14



IRS2153(1)(D) at a glance

600 V self-oscillating half bridge drivers

Key Features

- › Integrated programmable oscillator (C_T , R_T), similar to industry standard CMOS 555 timer
- › **180 mA / 260 mA** typical source/sink current
- › Integrated bootstrap FET – “D” versions only
- › **15.4 V** Zener clamp on Vcc
- › Shutdown on C_T pin
- › Interlocked
 - **1.1 μ s** typical dead time (IRS2153)
 - **0.6 μ s** typical dead time (IRS21531)
- › Micropower start-up



DSO-8



DIP-8

Typical Applications



Drives



Motor Control

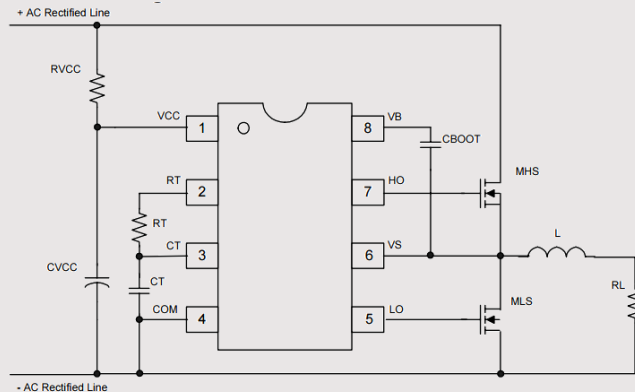


Home Appliance



Lighting

Sample Schematic



Value Proposition

- › Reduces external components allowing a simpler PCB layout and faster time to market
- › Easier implementation of protection features
- › Robust IC with increased device reliability

IRS230(4,8) Family at a glance: 600 V 290/600 mA Half-bridge drivers

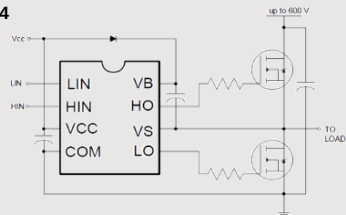
Key Features

- › **290 mA/600 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V, 5 V, and 15 V** logic compatible
- › Typical propagation delay
 - **150 ns** (IRS2304)
 - **220 ns/200 ns** (IRS2308)
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Interlocked
 - **100 ns** typical dead time (IRS2304)
 - **540 ns** typical dead time (IRS2308)
- › Matched propagation delays
- › Output in phase with input
- › Tolerant to negative transient voltage, dV/dt immune

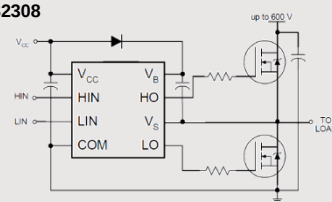


Sample Schematics

IRS2304



IRS2308



Value Proposition

- › Protection under abnormal operation
- › Robust, rugged IC tolerant to negative transient voltage, dV/dt immune
- › Various industry standard pin-out configurations enables easy, straight forward design

Typical Applications



IRS230(1,2) Family at a glance: 600 V 200/350 mA Half-bridge and High and low side drivers

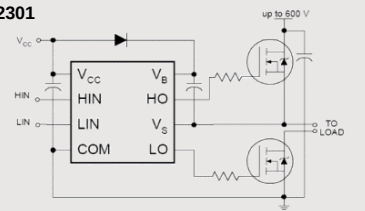
Key Features

- › **200 mA/350 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V, 5 V, and 15 V** logic compatible
- › Typical propagation delay
 - **220 ns/200 ns** (IRS2301)
 - **650 ns/200 ns** (IRS2302)
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Interlocked (IRS2302)
- › **450 ns** typical dead time
- › Matched propagation delays
- › Output in phase with input (IRS2301)
- › High side output in phase with input (IRS2302)
- › Shutdown input (IRS2302)
- › Tolerant to negative transient voltage, dV/dt immune

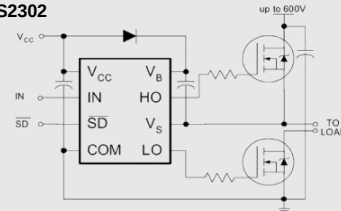


Sample Schematics

IRS2301



IRS2302

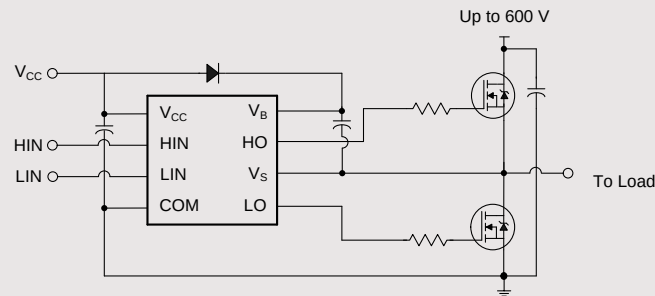


Value Proposition

- › Protection under abnormal operation
- › Robust, rugged IC tolerant to negative transient voltage, dV/dt immune
- › Various industry standard pin-out configurations enables easy, straight forward design

Typical Applications





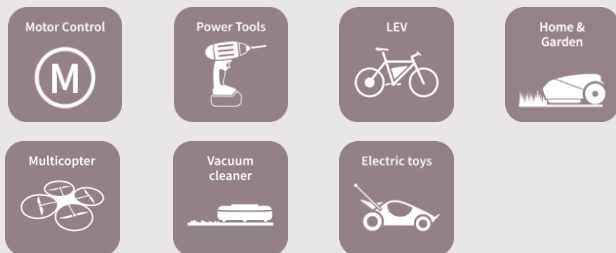
IRS21867 at a glance: 600 V High and low side driver for battery powered equipment

Key Features

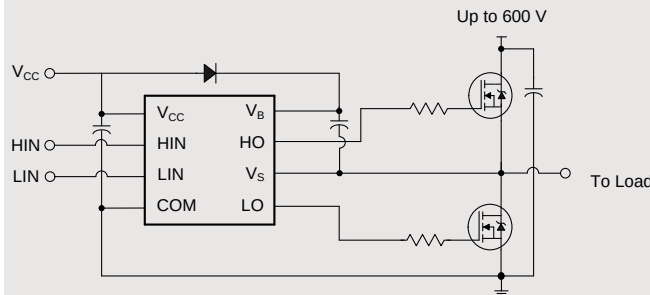
- › **4A** typical source/sink current
- › **5 V to 20 V** gate drive supply range
- › **3.3 V** and **5 V** logic compatible
- › **170 ns** typical propagation delay
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Matched propagation delays
- › Outputs in phase with inputs



Typical Applications



Sample Schematic



Value Proposition

- › Simple **600 V** high and low side driver for low voltage (**24 V**, **36 V** and **48 V**) and mid voltage (**60 V**, **80 V** and **100 V**) motor drive applications
- › Protection under abnormal operation
- › Robust IC with increased device reliability
- › Various industry standard pin-out configurations enables easy, straight forward design for fast time to market
- › Proven reliable, rugged technology

EiceDRIVER™ 6EDL Compact family, 6ED-F2 at a glance

Key Features

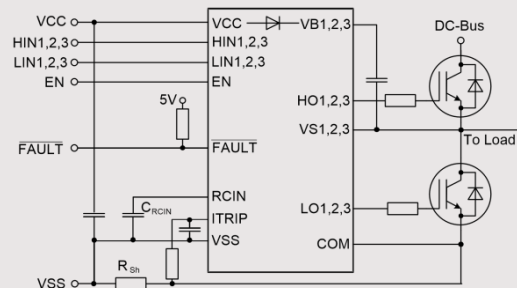
- › Silicon-on-insulator (SOI) technology prevents latch up
- › Maximum blocking voltage **+600 V**
- › Best in class bootstrap function
- › Separate control circuits for all six drivers
- › CMOS and LSTTL compatible input (negative logic)
- › A variety of safety functions help to get application certifications
- › Overcurrent protection, enable and adjustable auto-restart



Typical Applications



Sample Schematic



Value Proposition

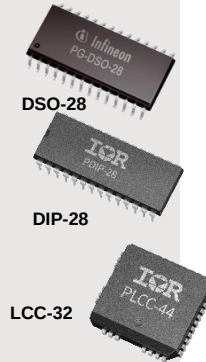
- › Input voltage at LIN, HIN, EN up to Vcc
- › Immunity against negative transient voltages, no latch up, down to **-50 V**
- › Integrated bootstrap diode (**40 Ω**) eliminates external bootstrap circuitry
- › Auto-restart after ITRIP with integrated current source
- › Pin compatible with various competitor products

IR2136(3,4,5,8) series at a glance

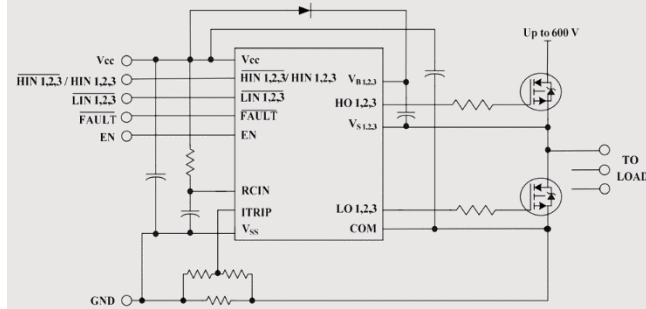
600 V Three phase drivers

Key Features

- › **200 mA / 350 mA** typical source/sink current
- › Gate drive supply range
 - **10 V to 20 V** (IR2136, IR21368)
 - **11.5 V to 20 V** (IR21364)
 - **12 V to 20 V** (IR2136(3,5))
- › **3.3 V** logic compatible
- › Typical propagation delay
 - **400 ns / 350 ns**
 - **500 ns / 530 ns** (IR21364)
- › Three independent half-bridge drivers
- › Undervoltage lockout for all channels
- › Over-current shutdown turns off all six drivers
- › Interlocked
- › Floating channel designed for bootstrap operation
- › Matched propagation delays



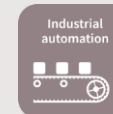
Sample Schematic



Value Proposition

- › Proven reliable, rugged technology
- › Tolerant to negative transient voltage
- › Integrated protective features

Typical Applications



IR213(0,2,3,5) at a glance: 600 V Three phase drivers with independent Op Amp

Key Features

- › **200 mA / 420 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **2.5 V** logic compatible
- › Typical propagation delay
 - **750 ns / 700 ns** (IR2133, IR2155)
 - **675 ns / 425 ns** (IR2130, IR2133)
- › Three independent half-bridge drivers
- › Independent operational amplifier
- › Under-voltage lockout
- › Over-current shutdown
- › Interlocked
- › Floating channel designed for bootstrap operation
- › Matched propagation delays

Typical Applications



Drives



Home Appliance

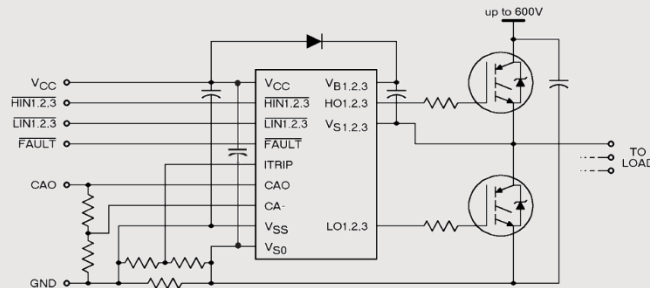


Aircon



Motor Control

Sample Schematic



Value Proposition

- › Comprehensive, integrated protective features
- › Op Amp provides analog feedback of bridge current
- › Proven reliable, rugged technology
- › Immunity increases device reliability



DSO-28



LCC-32



DIP-28

IRS2334 at a glance

Simple 600 V Three phase drivers

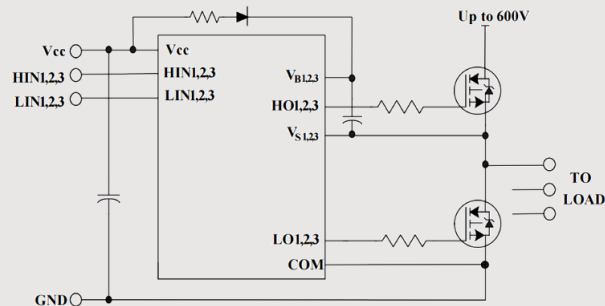
Key Features

- › **200 mA / 350 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **3.3 V** logic compatible
- › **530 ns** typical propagation delay
- › Three independent half-bridge drivers
- › Under-voltage lockout
- › Interlocked
- › Floating channel designed for bootstrap operation
- › Matched propagation delays
- › Outputs in phase with inputs

Typical Applications



Sample Schematic

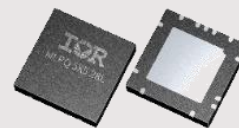


Value Proposition

- › Simple three phase gate driver is easy to design-in
- › Proven reliable, rugged technology
- › Tolerant to negative transient voltage, dV/dt immune



DSO-20



VQFN-28

IRS211(7,71,8) at a glance

Simple 600 V single channel driver

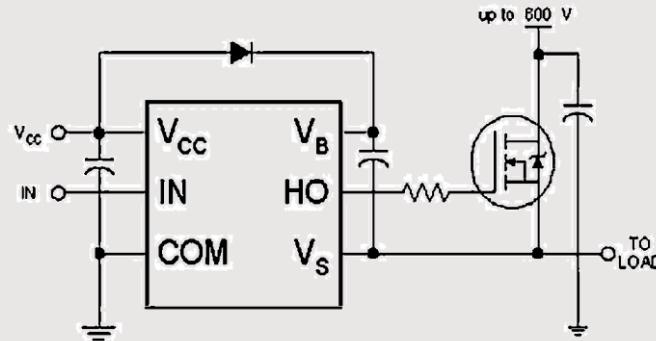
Key Features

- › **290 mA / 600 mA** typical source/sink current
- › **10 V to 20 V** gate drive supply range
- › **150 ns** typical propagation delay
- › Floating channel designed for bootstrap operation
- › Tolerant to negative transient voltage, dV/dt immune
- › Fully operational to **+600 V**
- › Under-voltage lockout
- › CMOS Schmitt-triggered inputs with pull-down
- › Outputs in phase with inputs
- › RoHS compliant
- › IN voltage threshold
 - **9.5 V & 6 V** (IRS211(7,8))
 - **2.5 V to 0.8 V** (IRS21171)

Typical Applications



Sample Schematic



Value Proposition

- › Simple driver for easy design-in and fast time to market
- › Proven reliable, rugged technology



IRS212(7,71,8,81) at a glance

600 V current sensing single channel drivers

Key Features

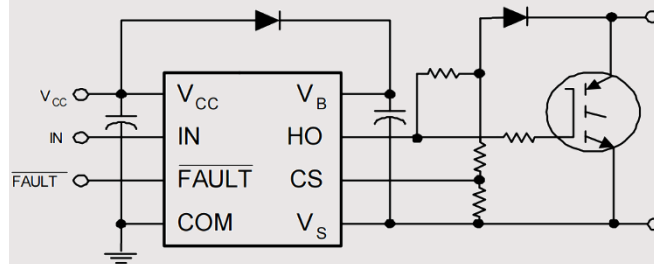
- › **290 mA / 600 mA** typical source/sink current
- › Gate drive supply range
 - **12 V to 20 V** (IRS2127/IRS2128)
 - **9 V to 20 V** (IRS21271/IRS21281)
- › **3.3 V, 5 V, and 15 V** logic compatible
- › Under-voltage lockout
- › Fault pin indicates an over-current shutdown has occurred
- › Output in phase with input (IRS2127(1))
- › Output out of phase with input (IRS2128(1))



Typical Applications



Sample Schematic



Value Proposition

- › Ideal for gate drive applications that require over-current detection
- › Comprehensive protection with UVLO, over-current protection and fault reporting
- › Designed for inexpensive bootstrap power supply for the high-side circuitry

IRS25752L, IRS20752L, IRS10752L at a glance

Cost effective single channel high-side drivers

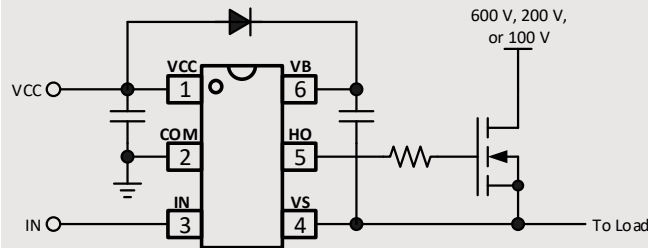
Key Features

- › Tiny 6-Lead SOT23 package
- › Designed for bootstrap operation
- › Fully operational to
 - **600 V** (IRS25752L)
 - **200 V** (IRS20752L)
 - **100 V** (IRS10752L)
- › Typical source/sink current: **160 mA/240 mA**
- › Wide V_{CC} range (**10 V-18 V**)
- › **140 ns/215 ns** typical propagation delay
- › **85 ns/40 ns** typical rise/fall times
- › UVLO on low-side and high-side
- › Excellent dv/dt immunity
- › Excellent negative VS transient immunity
- › Schmitt-trigger input with internal pull-down
- › Output in phase with input

Typical Applications



Sample Schematic



Value Proposition

- › Drives MOSFETs or IGBTs
- › **Tiny package with small PCB footprint**
- › **Cost-effective**
- › MCU friendly
- › Easy to use & design-in for fast time to market



SOT23-6

6ED2230S12T at-a-glance

1200 V, SOI, 3-phase gate driver

Key Features

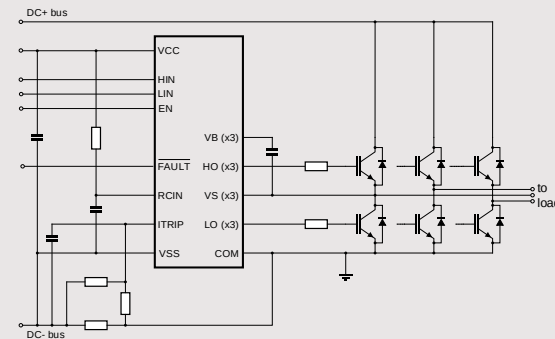
- > [6ED2230S12T Datasheet](#) 
- > **1200 V Infineon SOI Technology**
- > **Integrated, Ultra fast, low $R_{DS(on)}$ bootstrap diode**
- > Integrated 360 ns dead-time
- > Output current: I_{O+} 350 mA, I_{O-} 650 mA
- > Independent Under-voltage lockout for V_{CC} and V_{BS}
- > **25 V V_{CC} maximum voltage supply**
- > 3.3 V, 5 V, 15 V input logic compatible
- > Best in class minus VS performance
 - **-100 V with repetitive 700 ns pulses**
- > **SOIC-28 package (with 4 pins removed for high clearance)**
- > **Over current protection (ITRIP +/-5% reference)**
- > **Less than 1 us output shutdown for OCP events**
- > Fault reporting, automatic Fault clear and Enable function on the same pin (**RFE**)
- > 2 kV HBM ESD

$I_{O+/-}$ (typ) [mA]	Ton/off (typ) [ns]	DT (typ) [ns]	Tr/f (typ) [ns]	Input Filter (Typ) (ns)	Vcc/Vbs UVLO typ.
350/650	600	360	40	300	10.4-11.4 / 9.4-10.4

Typical applications



Typical Connection Diagram



Performance and value

- > Integrated, fast, and low $R_{DS(on)}$ bootstrap diode
 - Simplified lower-cost driver for 1200 V IGBTs
- > Industry leading minus VS robustness
 - Increased reliability and noise immunity
- > Over-current protection with +/-5% reference
- > Independent UVLO for V_{CC} and V_{BS}
- > Matched propagation delay
- > Easy to use for fast time to market



DSO-24



Available resources: [Datasheet](#), [Application Note](#),

Evaluation boards: [EVAL-M1-6ED2230-B1](#)

IR2x14 series at a glance

Half bridge driver with full OC protection

Key Features

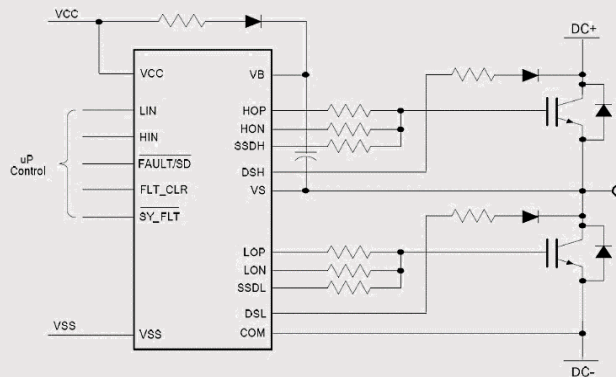
- › **2 A / 3 A** typical source/sink current
- › **10.4 V to 20 V** gate drive supply range
- › **440 ns** typical propagation delay
- › Floating channel up to **600 V** (IR2114) or **1200 V** (IR2214)
- › Soft over-current shutdown
- › Synchronization shutdown signal
- › Integrated desaturation detection circuit
- › 2-Stage turn-on output for di/dt control
- › Separate pull-up/pull-down output drive pins
- › Fault reporting
- › Internal biasing resistor
- › Undervoltage lockout V_{CC} & V_{BS}
- › Low quiescent current



Typical Applications



Sample Schematic



Value Proposition

- › Comprehensive IGBT protection
- › Low I_{qcc} allows the use of bootstrap power supply techniques in medium power systems
- › Full short circuit protection prevents over-voltages and reducing electromagnetic emissions
- › Dedicated local network manages phase-to-phase short circuits

IR2213 at a glance

Simple 1200 V High and low side Driver

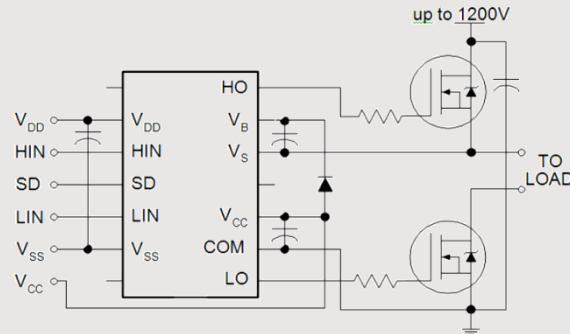
Key Features

- › **2 A / 2.5 A** typical source/sink current
- › **12 V to 20 V** gate drive supply range
- › **3.3 V** logic compatible
- › **280 ns/225 ns** typical propagation delay
- › Under-voltage lockout
- › Floating channel designed for bootstrap operation
- › Matched propagation delays
- › Outputs in phase with inputs

Typical Applications



Sample Schematic

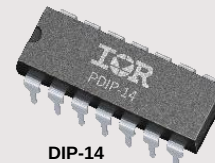


Value Proposition

- › Simple driver for easy design-in and fast time to market
- › Proven reliable, rugged technology
- › Tolerant to negative transient voltage, dV/dt immune



DSO-16 (WB)



DIP-14

IR2233 and IR2235 at a glance: 1200-V Three Phase Drivers with Independent Op Amp

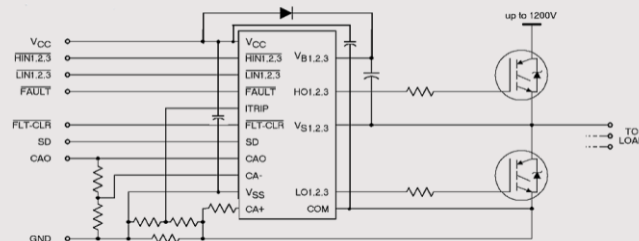
Key Features

- › **200 mA / 420 mA** typical source/sink current
- › Gate drive supply range:
 - **10 V to 20 V** (IR2233)
 - **12 V to 20 V** (IR2235)
- › Integrated deadtime (**250 ns**)
- › **750 ns / 700 ns** (on/off) typ propagation delay
- › Three independent half-bridge drivers
- › Over-current shutdown turns off all six drivers
- › **2.5 V** logic compatible
- › Independent op amp provides analog feedback of bridge current
- › Fault signal indicates over current or under-voltage shutdown
- › Shutdown function to terminate all six outputs

Typical Applications



Sample Schematic



Value Proposition

- › Protection under abnormal operation
- › Tolerant to negative transient voltage, dV/dt immune
- › Various package options and industry standard pin-out configurations enables easy, straight forward design for fast time to market



EiceDRIVER™ 1ED Compact (1ED-AF/1ED-MF)

Single-channel isolated driver with active Miller clamp or separate output in DSO-8 150 mil



Key Features

- Single channel isolated gate driver with **up to 10 A** (no booster required)
- Active Miller Clamp or Separate outputs**
- Galvanic functional isolation voltages up to **1200 V**
- 40 V** absolute maximum output supply voltage (1ED-AF) for Bipolar power supply preventing inadvertent dV/dt turn-on
- Exceptional CMTI robustness **> 100 kV/μs**
- Low propagation delay of **300 ns** or **125 ns**, suitable for fast switching application
- DSO-8 150 mil (4mm creepage)**
- For high voltage IGBT, MOSFET, CoolSiC™ SiC MOSFET
- Evaluation board available:**

- EVAL-1EDI60I12AF
- EVAL-PS-E1BF12-SiC
- EVAL_HB_PARALLELIGAN
- EVAL_800W_PSU_3P_P7



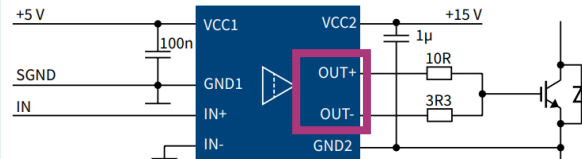
www.infineon.com/gdcompact

Typical Applications

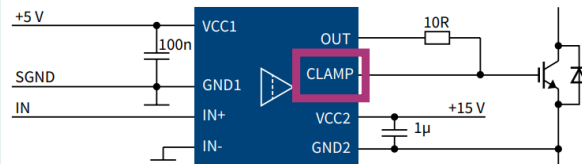


Sample schematic

Separate sink/source outputs



Active Miller clamp



7 IGBT

+SiC

DSO-8 150 mil	1EDI60N12AF	1EDI60I12AF	1EDI20N12AF	1EDI30I12MF
Typ. Output current	±10 A	±10 A	±4 A	±6 A
Propagation delay	125 ns	300 ns	125 ns	300 ns
Input Filter	40 ns	240 ns	40 ns	240 ns
CMTI	100 kV/μs	100 kV/μs	100 kV/μs	100 kV/μs
Output supply voltage	40 V	40 V	40 V	20 V
Propagation delay matching	20 ns	20 ns	20 ns	20 ns
UVLO (on)	9 V	12 V	9 V	12 V

EiceDRIVER™ X3 Compact (1ED31xx) family

Single-channel isolated gate driver with active Miller clamp or separate output

Product highlights

- Single channel isolated gate driver with **5.5 / 10 / 14 A** (no booster required)
- Galvanic functional isolation voltages up to **2300 V**
- 90 ns** propagation delay with **30 ns** input filter, **7 ns** propagation delay matching
- Active Miller Clamp or Separate outputs**
- Exceptional CMTI robustness > **200 kV/μs**
- 40 V absolute maximum** output supply voltage
- Isolation capabilities & certification
 - 1ED31xxMU12F: **UL 1577 certified** $V_{ISO}=3 \text{ kV(rms)}$
 - 1ED31xxMU12H: **UL 1577 certified** $V_{ISO}=5.7 \text{ kV(rms)}$
 - 1ED31xxMC12H: **UL 1577 & VDE 0884-11 certified** $V_{IORM}=1767 \text{ V (planned)}$
- DSO-8 150 mil (4 mm creepage) & 300 mil package (8 mm creepage)
- Evaluation board available:**
 - EVAL-1ED3121MX12H; EVAL-1ED3122MX12H; EVAL-1ED3124MX12H

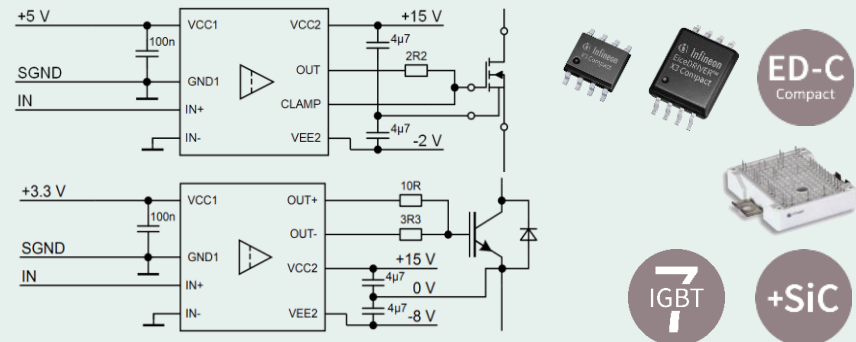


www.infineon.com/gdcompact

Typical Applications



Sample schematic

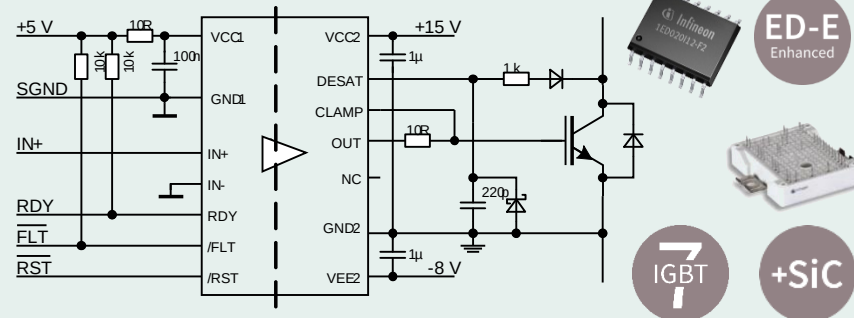


DSO-8 150 mil		1ED3124MU12F		1ED3125MU12F
DSO-8 300 mil		1ED3123MU12H	1ED3120MU12H	
	1ED3131MU12H	1ED3124MU12H	1ED3121MU12H	1ED3122MU12H
Typ. Output current	±5.5 A	±14 A	±5.5 A	±10 A
Propagation delay	280 ns	90 ns	90 ns	90 ns
Input Filter	180 ns	30 ns	30 ns	30 ns
CMTI	200 kV/μs	200 kV/μs	200 kV/μs	200 kV/μs
Output supply voltage	40 V	40 V	40 V	40 V
Propagation delay matching	7 ns	7 ns	7 ns	7 ns
UVLO (on)	12 V	10 V or 12 V	10 V or 12 V	10 V or 12 V

Sample Schematic

- › Single channel isolated gate driver IC for IGBT and SiC MOSFET
- › Galvanic isolation with coreless transformer up to **1200 V**
- › **2 A** typical rail-to-rail output current
- › Exceptional CMTI robustness > **100 kV/μs**
- › **DESAT, Miller clamp**, Short circuit clamping, Active shut-down, FLT & RDY
- › **195/190 ns** Max. propagation delay (1ED-F2/B2)
- › **Two level turn off**, 2 μs Max. propagation delay (1ED-BT/FT only)
- › **28 V** absolute maximum output supply voltage
- › 1ED-B2/BT Isolation capabilities & certification:
 - UL 1577 with $V_{ISO} = 3750 \text{ V}$ (rms) for 1 min
 - VDE 0884-10 for $V_{IORM}=1420 \text{ V}$, $V_{IOTM}=6000 \text{ V}$ (standard expired, while testing methodology remain unchanged)
- › DSO-16 300 mil wide body package with **8 mm** creepage

Typical Applications



Value Proposition

- › Immunity against negative transient voltages, no latch up
 - › Optimal controllability of application with dedicated UVLO
 - › Reduced external components enables simple PCB layout and faster design-in
 - › **Evaluation board available:**
 - EVAL-1ED020I12-B2
 - EVAL-1ED020I12-BT
 - 2ED250E12-F
 - 6ED100E12-F2
 - 2ED100E12-F2
- 



EiceDRIVER™ Enhanced 2ED020I12-F2 (2ED-F2)

Dual-channel isolated gate driver with active Miller clamp and DESAT



Key Features

- › **Dual channel** isolated gate driver IC for IGBT and SiC MOSFET
- › Galvanic isolation with coreless transformer up to **1200 V**
- › **2 A** typical rail-to-rail output current
- › **170 ns / 165 ns** propagation delay
- › Exceptional CMTI robustness > **50 kV/μs**
- › **DESAT, Miller clamp**, Short circuit clamping, Active shut-down, FLT & RDY
- › **28 V** absolute maximum output supply voltage
- › **11 V / 12 V** under-voltage lockout
- › Small footprint in **DSO-36 300 mil** package with **8 mm** creepage
- › Evaluation board available:
 - EVAL-2ED020I12-F2

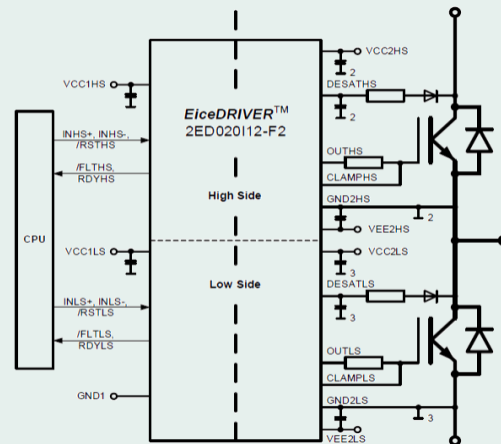


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Typical Applications



Sample Schematic



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7
IGBT

+SiC

Value Proposition

- › Galvanic Insulation
- › Integrated protection features such as DESAT and active Miller clamp
- › Suitable for operation at high ambient temperature

DSO-36



EiceDRIVER™ Enhanced 2ED020I12-FI & 2ED020I06-FI (2ED-FI)

Half-bridge isolated gate driver (isolated only on high side)



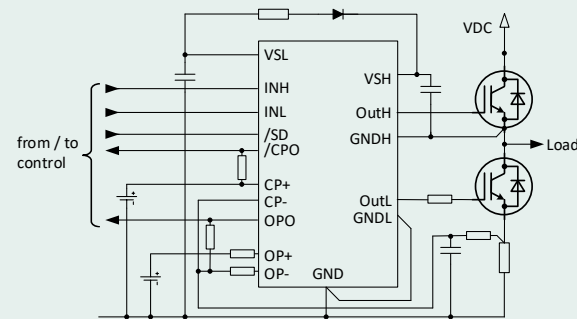
Key Features

- › Galvanic isolation based on coreless transformer on the high side, **half bridge** isolated gate driver IC
- › Drive up to **1200 V IGBT** and n channel power **MOSFET** (2ED020I12-FI)
- › **Interlock** (shoot through protection)
- › Power supply operating range from **14 V to 18 V**
- › Gate drive currents of **+1 A / -2 A**
- › Dedicated **Shutdown** input
- › Matched propagation delay for both channels (typ. 85ns propagation delay / ± 25 ns propagation delay mismatch)
- › High dV/dt immunity
- › Low power consumption
- › General purpose **operational amplifier**
- › General purpose **comparator**
- › For High Power Constant Current Power Supply
- › 600 V version also available: 2ED020I06-FI www.infineon.com/gdenhanced

Typical Applications



Sample Schematic



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7
IGBT

+SiC

Value Proposition

- › Best **cost performance ratio** product in EiceDRIVER™ Enhanced family
- › General purpose operational amplifier and the comparator for **current measurement and OCP** reduce system cost by up to 0.15€ per half bridge
- › Reduced external components enables a simpler PCB layout, faster design-in, and improved reliability



DSO-18

EiceDRIVER™ Enhanced X3 Analog (1ED34xx) family

Single-channel isolated gate driver with active Miller clamp, adjustable DESAT and soft-off

Product highlights

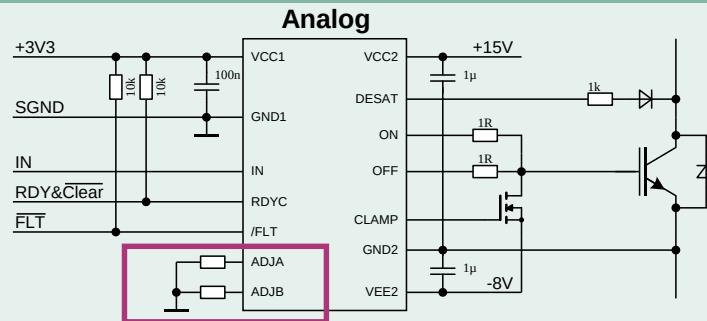
- › Single channel isolated gate driver with **3 / 6 / 9 A**
- › Galvanic functional isolation voltages up to **2300 V**
- › Active Miller clamp (clamp driver), DESAT, soft-off, Thermal shutdown
- › Exceptional CMTI robustness > **200 kV/μs**
- › **X3 Analog configurability**
 - › Adjustable **DESAT filter time & blanking time** and **soft-off current** with external resistor
- › Isolation capabilities & certification
 - › 1ED34x1MU12M: **UL 1577** certified $V_{ISO}=5.7$ kV(rms)
 - › 1ED34x1MC12M: **UL 1577 & VDE 0884-11** certified $V_{IORM}=1767$ V (planned)
- › **DSO-16** fine pitch, 300 mil wide-body package (8 mm creepage)
- › For IGBTs, MOSFETs, CoolSiC™ SiC MOSFETs
- › Evaluation board available:
 - › EVAL-1ED3491MX12M

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Typical Applications



Sample schematic



Value proposition

- › **Flexibility** based on **register-based configuration** adjustments
- › **Reduction in hardware complexity** with less customer product variants
- › **Reduction in the evaluation time** with adjustable parameters for **faster time-to-market**.



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Enhanced

EiceDRIVER™ Enhanced X3 Digital (1ED38xx) family

Single-channel isolated gate driver with I2C configurability, Miller clamp, DESAT and soft-off

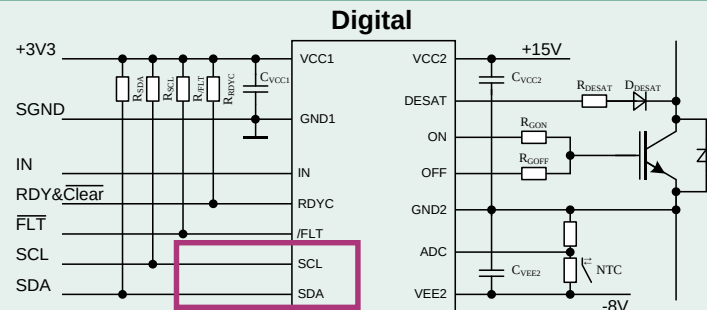
Product highlights

- › Single channel isolated gate driver with **3 / 6 / 9 A**
- › Galvanic functional isolation voltages up to **2300 V**
- › Active Miller clamp (clamp driver), DESAT, soft-off, Thermal **monitoring** and shutdown
- › Exceptional CMTI robustness > **200 kV/μs**
- › **X3 Digital configurability**
 - › **Full adjustable via I2C bus**: 3 address configuration, 27 parameter configuration, 16 status
 - › **Configurable** UVLO, **DESAT**², TLTO, Soft-off, Miller clamp
- › Isolation capabilities & certification
 - › 1ED38x0MU12M: **UL 1577** certified $V_{ISO}=5.7$ kV(rms)
 - › 1ED38x0MC12M: **UL 1577 & VDE 0884-11** certified $V_{IORM}=1767$ V (planned)
- › **DSO-16** fine pitch, 300 mil wide-body package (8 mm creepage)
- › For IGBTs, MOSFETs, CoolSiC™ SiC MOSFETs www.infineon.com/gdenhanced

Typical Applications



Sample schematic



Value proposition

- › **Highest flexibility** introduced by **register-based adjustments via I2C**
- › **Reduction in hardware complexity** with less customer product variants
- › **Reduction in the evaluation time** with adjustable parameters for **faster time-to-market**.

ED-E
Enhanced

7
IGBT

+SiC



EiceDRIVER™ Enhanced 1EDx20I12SV (1ED-SRC) family

Single-channel isolated gate driver with Slew Rate Control, Miller clamp, DESAT and soft-off



Key Features

- › Galvanic functional isolation voltages up to **1200 V**
- › Control over IGBT turn-on time using **slew rate control**
- › Precise dynamic gate-current control
- › Soft turn-off and two-level turn-off
- › Unique: selective short circuit protection for 3-level inverters
- › Overcurrent protection for sense IGBTs and conventional IGBTs
- › DESAT, soft turn-off, and two-level turn-off
- › Drive power modules up to 900 A
- › 1EDS20I12SV: **Reinforced isolation** VDE 0884-10 and UL 1577 ($V_{ISO} = 5 \text{ kV(rms)}$ for 1 min) (VDE-10 standard expired, while testing methodology remain unchanged)
- › 1EDU20I12SV: Isolation certified according UL 1577 ($V_{ISO} = 5 \text{ kV(rms)}$ for 1 min)



DSO-36

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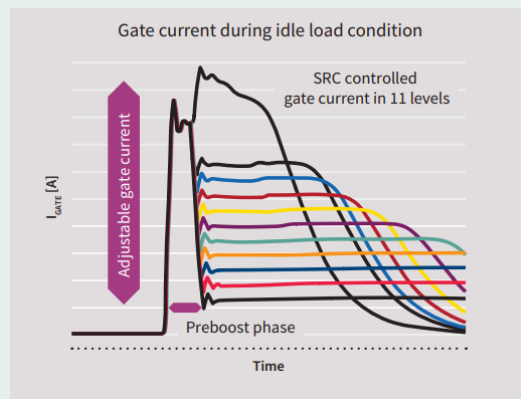
ED-E
Enhanced

Typical Applications

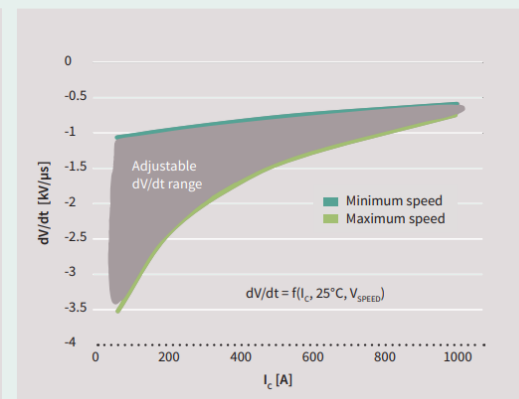


Sample Schematic

Feature – real-time gate current control:



Effect – gate turn-on tunable across a very large dV/dt range:



Value Proposition

- › Real-time slew rate control
 - **Increased efficiency** by adapting slew rate to operating conditions
 - **EMI control**
- › Inhibit option for automatic short-circuit shut-down
- › Soft turn-off results in low inductive overshoot at overcurrent or short-circuit shut-down
- › **Evaluation board available:**
 - › EVAL-1EDS20I12SV



Agenda

1 Manual & Technology, Configuration and Features

2 Application Areas

3 Recommended Products

4 Products At A Glance

5 Support Material

Gate driver support shortlinks

Website Tools

- Infineon gate drivers home page / 中文版
- Gate driver finder tool (Web)
- Gate driver X-reference (Web)
- Gate driver forum
- Simulation tools (Web)
- Evaluation Boards (Web)
- Introduction to gate drivers (Video)
- 1EDN EiceDRIVER™ Gate-Driver-ICs (Video)
- 2EDL EiceDRIVER™ Gate-Driver-ICs (Video)

- www.infineon.com/gatedriver / www.infineon.com/gatedriver-cn or
- www.infineon.com/gdfinder
- www.infineon.com/crs
- www.infineon.com/gate-driver-forum
- www.infineon.com/ifxdesigner
- www.infineon.com/gdevalboards
- www.infineon.com/gdvideointro
- www.infineon.com/gdvideo1EDN
- www.infineon.com/gdvideo2EDL

Product promo page

- 200 V Level Shift Gate Driver ICs
- 500 - 700 V Level Shift Gate Driver ICs
- 1200 V Level Shift Gate Driver ICs
- 25 V Low-side Gate Driver ICs
- SiC MOSFET Gate Driver ICs / 中文版
- EiceDRIVER™ Compact Isolated Gate Driver ICs
- EiceDRIVER™ Enhanced Isolated Gate Driver ICs
- The Slew-Rate Control EiceDRIVER™
- 1EDN EiceDRIVER™ Gate-Driver-ICs home page
- 2EDN EiceDRIVER™ Gate-Driver-ICs home page
- Solid state relays

- www.infineon.com/200vhvic
- www.infineon.com/700vhvic
- www.infineon.com/1200vhvic
- www.infineon.com/gdLowSide
- www.infineon.com/gdsic / www.infineon.com/gdsic-cn
- www.infineon.com/gdCompact
- www.infineon.com/gdEnhanced
- www.infineon.com/src
- www.infineon.com/1EDN
- www.infineon.com/2EDN
- www.infineon.com/ssr

Gate Driver IC Support material

Support Materials

- Gate driver selection guide brochure (PDF)
- Gate driver application selection matrix (PDF)/ 中文
- Gate driver product portfolio presentation (PPT)
- Gate driver application selection matrix (PPT)
- Isolated gate driver selection guide (PDF)/ Chinese
- Gate driver selection & support tools manual (PPT)
- Solid State Relay product portfolio presentation (PPT)
- Solid State Relay Cross Reference (Excel)
- Solid State Relay Simple Selection Tool (Excel)

- www.infineon.com/gdbrochure
- www.infineon.com/gdapplication / www.infineon.com/gdapplication-cn
- www.infineon.com/gdpresentation
- www.infineon.com/gdmatrix
- www.infineon.com/gdiso / www.infineon.com/gdiso-cn
- www.infineon.com/gdsupport
- www.infineon.com/ssrpresentation
- www.infineon.com/SSRx-ref
- www.infineon.com/SSRselection

IPC gate driver contacts				
	Isolated gate drivers	Solid state relays	600 V level-shift gate drivers	1200 V level-shift gate drivers 200 V level-shift gate drivers High-side gate drivers Low-side gate drivers
Product marketing	Andreas Genser	Davide Giacomini	Tom Kapucija	
Product management	Iris Li		Vijayanthi Tuttle	Chianny Lin



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