

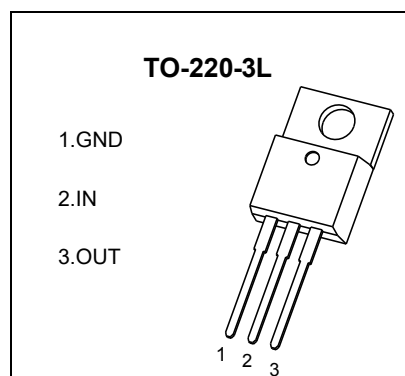


TO-220-3L Plastic-Encapsulate Voltage Regulator

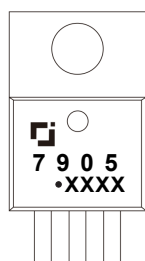
CJ7905 Three-terminal negative voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 1.5 A
- Output voltage
 V_O : -5V
- Continuous total dissipation
 P_D : 1.5 W ($T_a = 25^\circ\text{C}$)



MARKING



7905=Device code
Solid dot = Green molding compound device
if none, the normal device.
XXXX = Code

ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance from Junction to Air	$R_{\theta JA}$	83.3	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	-40~+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

Electrical Characteristics

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE

($V_i = -10V$, $I_o = 500mA$, $C_i = 2.2\mu F$, $C_o = 1\mu F$, unless otherwise specified)

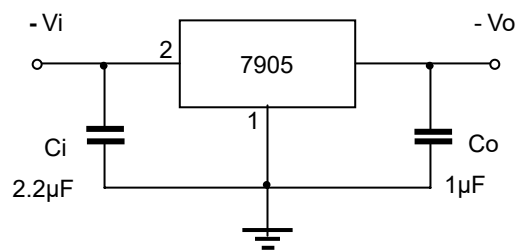
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$T_J = 25^\circ C$	-4.85	-5	-5.15	V
		$-7V \leq V_i \leq -20V$, $I_o = 5mA - 1A$	-4.75	-5	-5.25	V
Load Regulation	ΔV_o	$I_o = 5mA - 1.5A$, $T_J = 25^\circ C$		15	100	mV
		$I_o = 250mA - 750mA$, $T_J = 25^\circ C$		5	50	mV
Line Regulation	ΔV_o	$-7V \leq V_i \leq -25V$, $T_J = 25^\circ C$		12.5	50	mV
		$-8V \leq V_i \leq -12V$, $T_J = 25^\circ C$		4	15	mV
Quiescent Current	I_q	$T_J = 25^\circ C$		1.5	2	mA
Quiescent Current Change	ΔI_q	$-7V \leq V_i \leq -25V$			0.5	mA
	ΔI_q	$5mA \leq I_o \leq 1A$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$, $T_J = 25^\circ C$		125		$\mu V/V_o$
Output Voltage Drift	$\Delta V_o / \Delta T$	$I_o = 5mA$		-0.4		$mV/^\circ C$
Ripple Rejection	RR	$-8V \leq V_i \leq -18V$, $f = 120Hz$	54	60		dB
Dropout Voltage	V_d	$I_o = 1A$, $T_J = 25^\circ C$		1.1		V
Peak Current	I_{pk}	$T_J = 25^\circ C$		2.1		A

* Pulse test.

Note1: Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. These are stress ratings only, which do not imply functional operation of the device at these or any other conditions beyond those indicated under Recommended Operating Conditions. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

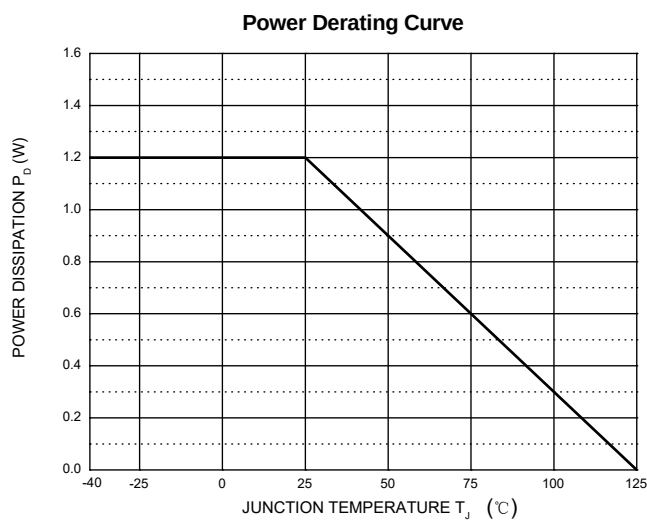
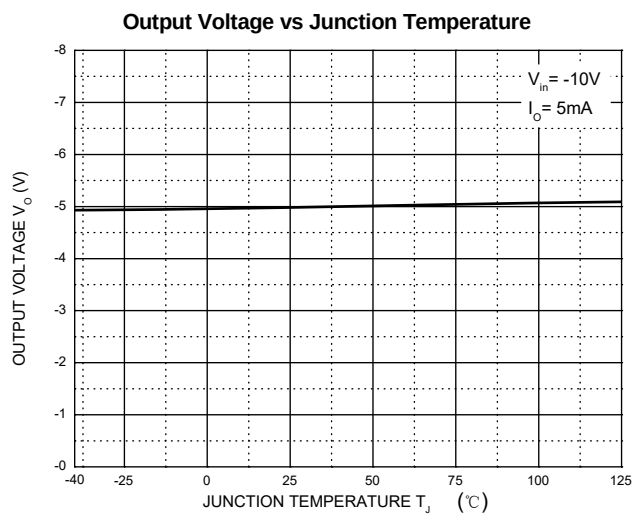
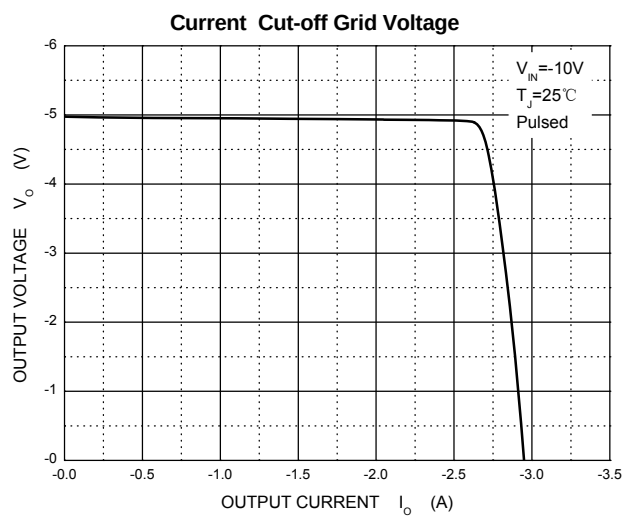
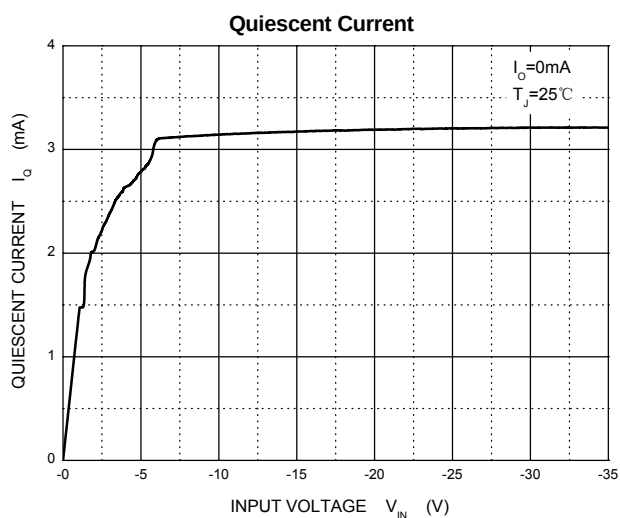
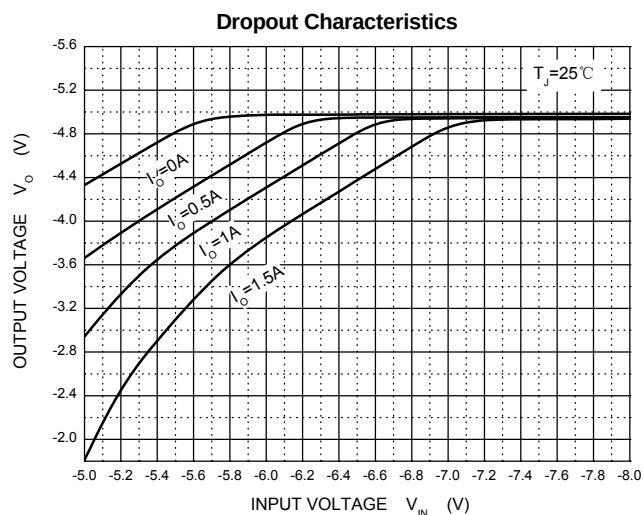
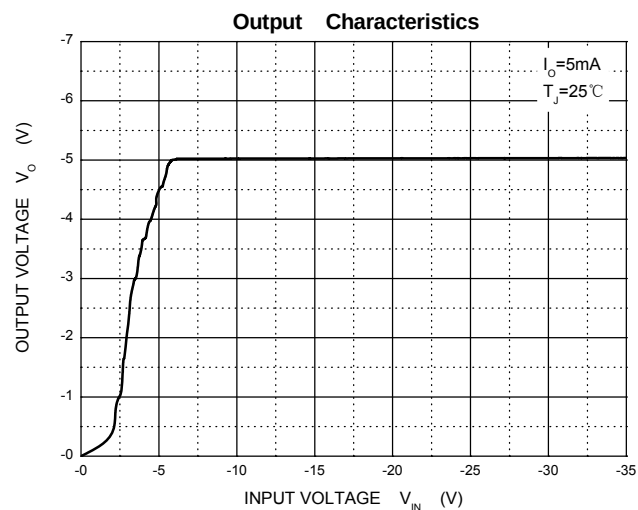
Note2: This IC may be damaged by ESD. Relevant personnel shall comply with correct installation and use specifications to avoid ESD damage to the IC.

TYPICAL APPLICATION

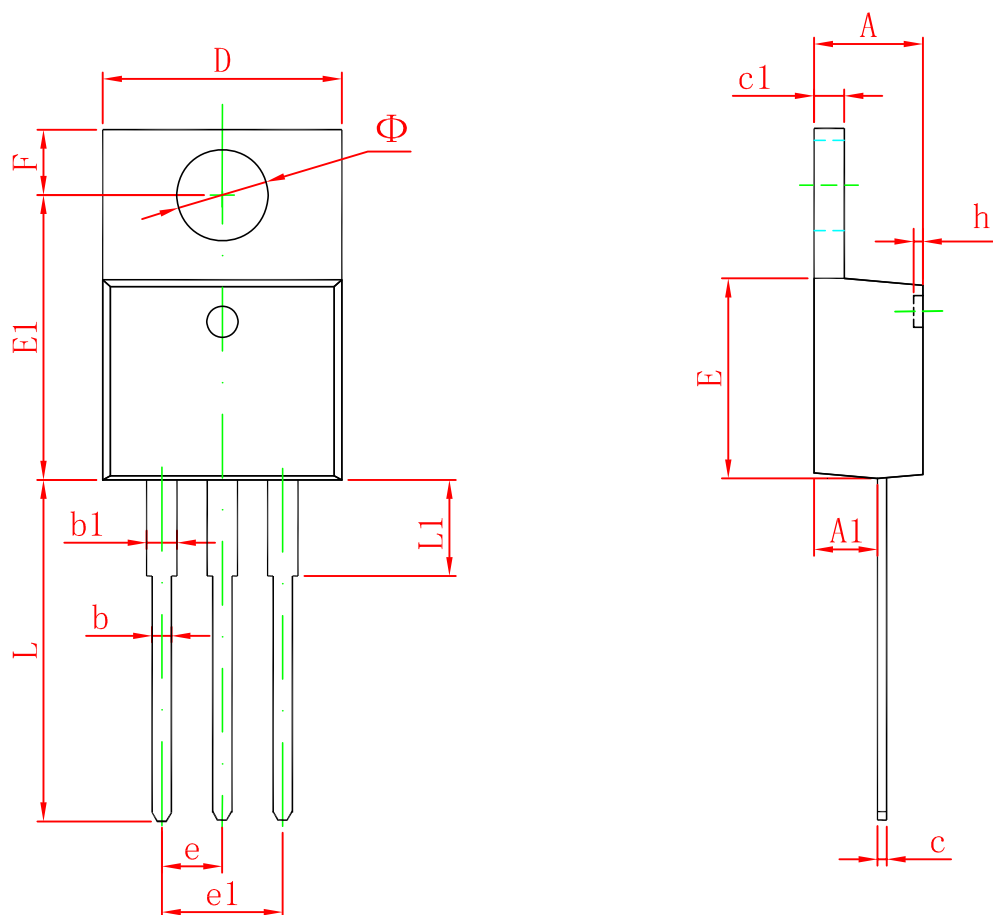


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics



TO-220-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155

DISCLAIMER

IMPORTANT NOTICE, PLEASE READ CAREFULLY

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