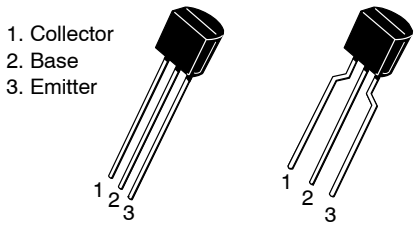
NPN Epitaxial Silicon Transistor

BC337



TO−92 3
CASE 135AN

TO−92 3 LF
CASE 135AR

Features

- Switching and Amplifier Applications
- Suitable for AF−Driver Stages and Low−Power Output Stages
- Complement to BC327/BC328

ABSOLUTE MAXIMUM RATINGS

(T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Value	Unit
V_{CES}	Collector−Emitter Voltage	50	V
V_{CEO}	Collector−Emitter Voltage	45	V
V_{EBO}	Emitter−Base Voltage	5	V
I_C	Collector Current (DC)	800	mA
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	−55 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

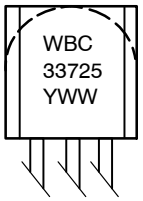
THERMAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted.) (Note 1)

Symbol	Characteristic	Value	Unit
P_D	Power Dissipation Derate Above 25°C	625 5.0	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	°C/W

1. PCB size: FR−4, 76 mm × 114 mm × 1.57 mm (3.0 inch × 4.5 inch × 0.062 inch) with minimum land pattern size.

MARKING DIAGRAM



WBC = Assembly Location
33725 = Specific Device Code
Y = Year
WW = Work Week

ORDERING INFORMATION

Device	Package	Shipping†
BC33740BU	TO−92 3 (Pb−Free)	10,000 Units / BLKBG
BC33725BU	TO−92 3 (Pb−Free)	10,000 Units / BLKBG
BC33716BU	TO−92 3 (Pb−Free)	10,000 Units / BLKBG
BC33740TA	TO−92 3 LF (Pb−Free)	2,000 Units / FNFLD
BC33725TA	TO−92 3 LF (Pb−Free)	2,000 Units / FNFLD
BC33725TAR	TO−92 3 LF (Pb−Free)	2,000 Units / FNFLD
BC33716TA	TO−92 3 LF (Pb−Free)	2,000 Units / FNFLD
BC33725TF	TO−92 3 LF (Pb−Free)	2,000 / Tape & Reel
BC33725TFR	TO−92 3 LF (Pb−Free)	2,000 / Tape & Reel
BC33716TFR	TO−92 3 LF (Pb−Free)	2,000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

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ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
BV_{CEO}	Collector–Emitter Breakdown Voltage	I_C = 10 mA, I_B = 0	45	–	–	V
BV_{CES}	Collector–Emitter Breakdown Voltage	I_C = 0.1 mA, V_{BE} = 0	50	–	–	V
BV_{EBO}	Emitter–Base Breakdown Voltage	I_E = 0.1 mA, I_C = 0	5	–	–	V
I_{CES}	Collector Cut–Off Current	V_{CE} = 45 V, I_B = 0	–	2	100	nA
h_{FE1}	DC Current Gain	V_{CE} = 1 V, I_C = 100 mA	100	–	630	
h_{FE2}		V_{CE} = 1 V, I_C = 300 mA	60	–		
V_{CE}(sat)	Collector–Emitter Saturation Voltage	I_C = 500 mA, I_B = 50 mA	–	–	0.7	V
V_{BE}(on)	Base–Emitter On Voltage	V_{CE} = 1 V, I_C = 300 mA	–	–	1.2	V
f_T	Current Gain Bandwidth Product	V_{CE} = 5 V, I_C = 10 mA, f = 50 MHz	–	100	–	MHz
C_{ob}	Output Capacitance	V_{CB} = 10 V, I_E = 0, f = 1 MHz	–	12	–	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

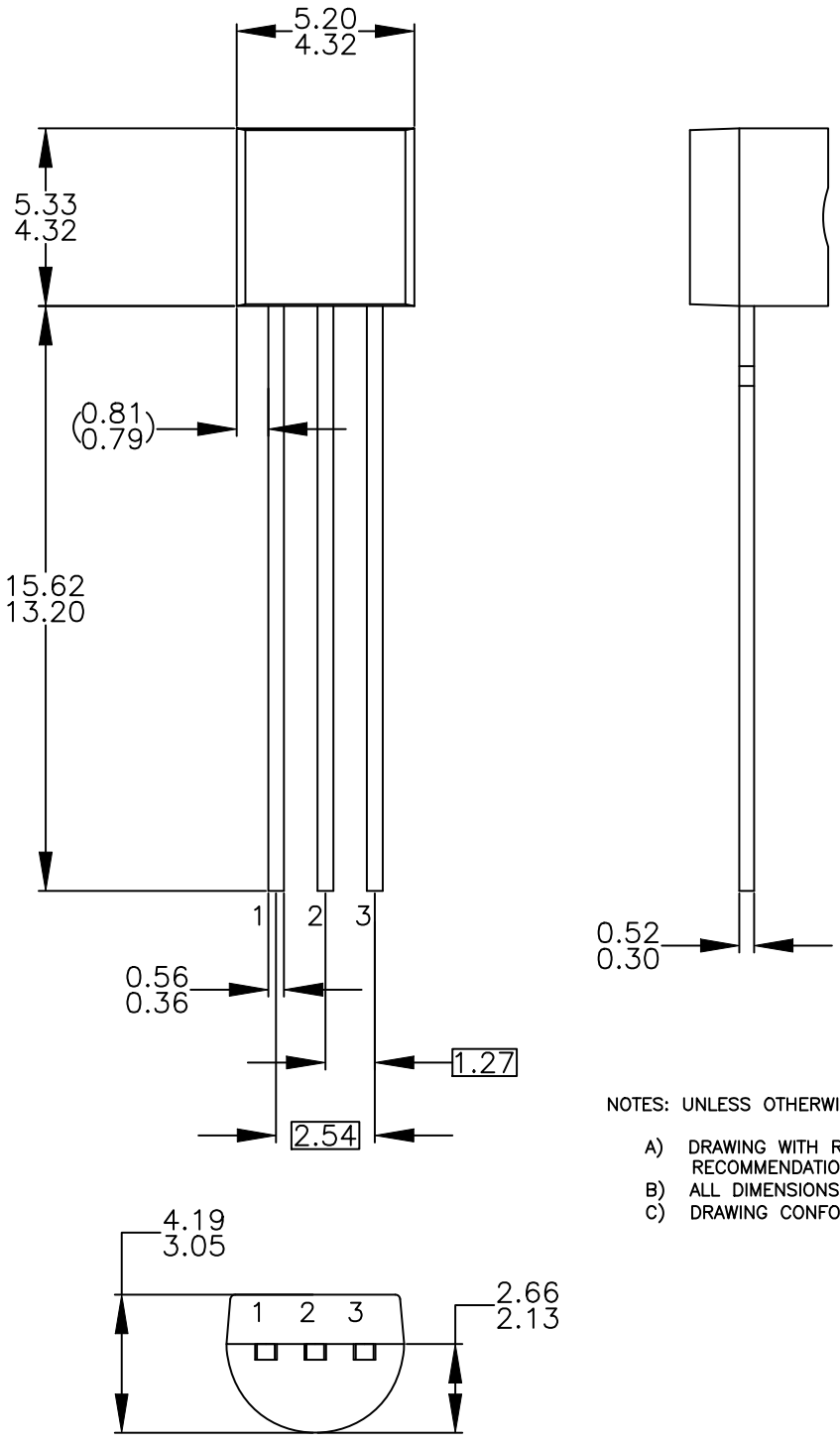
h_{FE} Classification

Classification	16	25	40
h_{FE1}	100 ~ 250	160 ~ 400	250 ~ 630
h_{FE2}	60 ~	100 ~	170 ~

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TO−92 3 4.825x4.76
CASE 135AN
ISSUE O

DATE 31 JUL 2016



NOTES: UNLESS OTHERWISE SPECIFIED

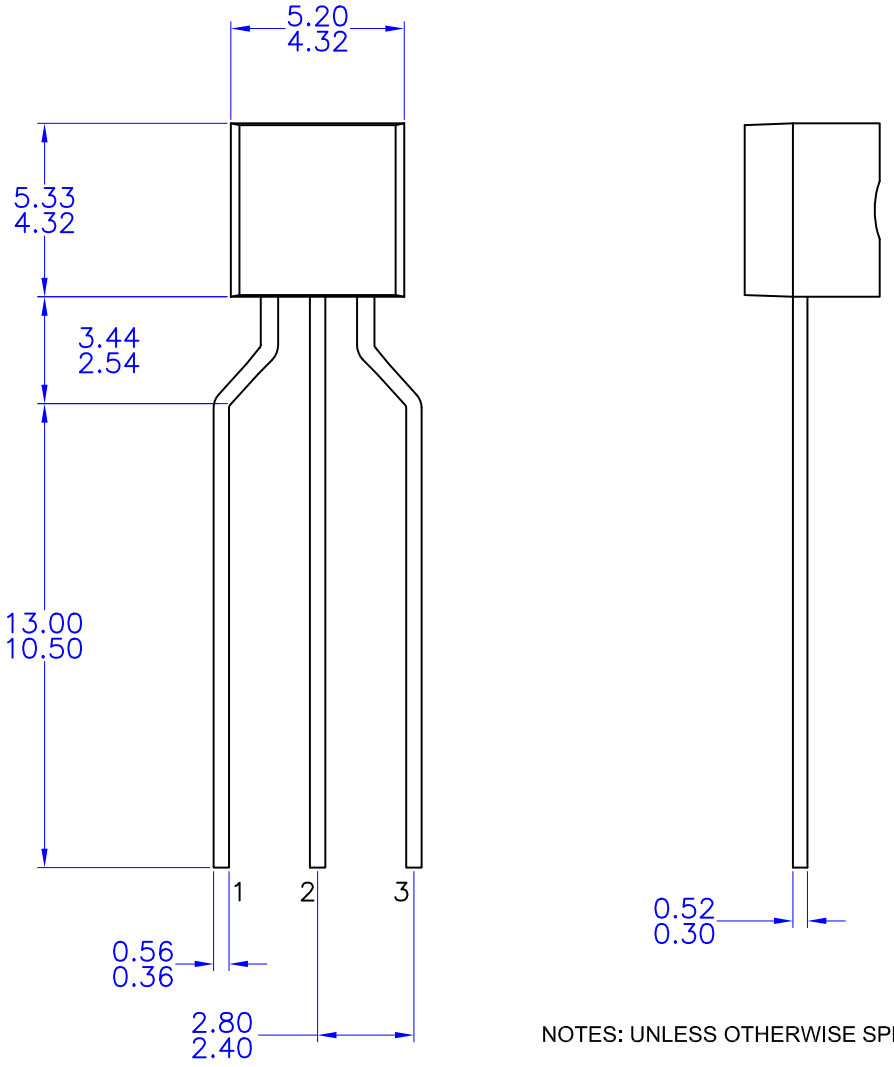
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B) ALL DIMENSIONS ARE IN MILLIMETERS.
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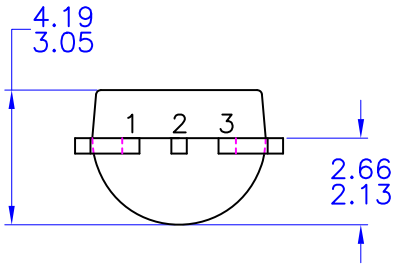
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TO−92 3 4.83x4.76 LEADFORMED
CASE 135AR
ISSUE O

DATE 30 SEP 2016





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