

## BC327 SERIES

### PNP GENERAL PURPOSE TRANSISTORS

VOLTAGE	45	POWER	625mW
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#### FEATURES

General purpose amplifier applications

PNP epitaxial silicon, planar design

Collector current  $I_C = -800\text{mA}$

#### MECHANICAL DATA

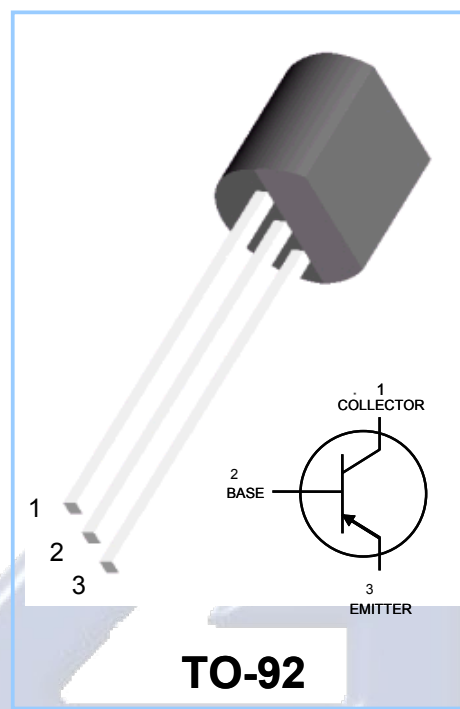
Case: TO-92

Terminals: Solderable per MIL-STD-202, Method 208

Device Marking: BC327-16: 7A

BC327-25: 7B

BC327-40: 7C



#### ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	Value	UNIT
Collector - Emitter Voltage	$V_{CE0}$	-45	V
Collector - Base Voltage	$V_{CB0}$	-50	V
Emitter - Base Voltage	$V_{EB0}$	-5.0	V
Collector Current - Continuous	$I_C$	-800	mA
Max Power Dissipation (Note 1)	$P_{TOT}$	625	mW
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to 150	$^{\circ}\text{C}$

#### THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	Value	UNIT
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	200	$^{\circ}\text{C}/\text{W}$

Note 1: Transistor mounted on FR-5 board 1.0 x 0.75 x 0.062 in.

**ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25 C, unless otherwise noted)**

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
Collector - Emitter Breakdown Voltage (I <sub>C</sub> =-10mA, I <sub>B</sub> =0)	V <sub>(BR)CE0</sub>	-45	-	-	V
Collector - Emitter Breakdown Voltage (V <sub>EB</sub> =0V, I <sub>C</sub> =-100uA)	V <sub>(BR)CES</sub>	-50	-	-	V
Emitter - Base Breakdown Voltage (I <sub>E</sub> =-10uA, I <sub>C</sub> =0)	V <sub>(BR)EB0</sub>	-5.0	-	-	V
Emitter-Base Cutoff Current (V <sub>EB</sub> =-4V)	I <sub>EBO</sub>	-	-	-100	nA
Collector-Base Cutoff Current (V <sub>CB</sub> =-30V, I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-	-100	nA
Collector Cutoff Current (V <sub>CE</sub> =-45V, V <sub>BE</sub> =0)	I <sub>CES</sub>	-	-	-100	nA
DC Current Gain (I <sub>C</sub> =-100mA, V <sub>CE</sub> =-1V)	BC337-16	100	-	250	-
	BC337-25	160	-	400	
	BC337-40	250	-	630	
(I <sub>C</sub> =-300mA, V <sub>CE</sub> =-1V)	h <sub>FE</sub>	40	-	-	
Collector - Emitter Saturation Voltage (I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA)	V <sub>CE(SAT)</sub>	-	-	-0.7	V
Base - Emitter Voltage (I <sub>C</sub> =-300mA, V <sub>CE</sub> =-1.0V)	V <sub>BE(ON)</sub>	-	-	-1.2	V
Collector - Base Capacitance (V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz)	C <sub>CBO</sub>	-	5.0	-	pF
Current Gain - Bandwidth Product (I <sub>C</sub> =-10mA, V <sub>CE</sub> =-5V, f=100MHz)	f <sub>T</sub>	-	210	-	MHZ

**ELECTRICAL CHARACTERISTICS CURVES**

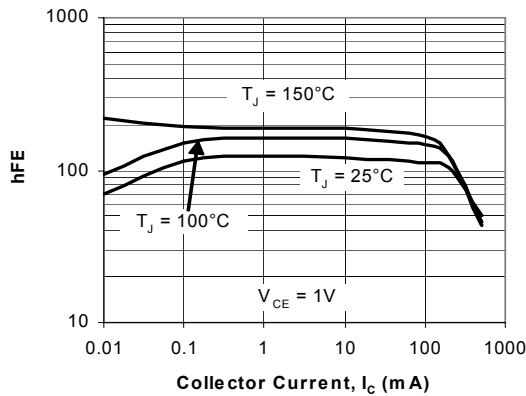


Fig. 1. BC337-16 Typical h<sub>FE</sub> vs. I<sub>C</sub>

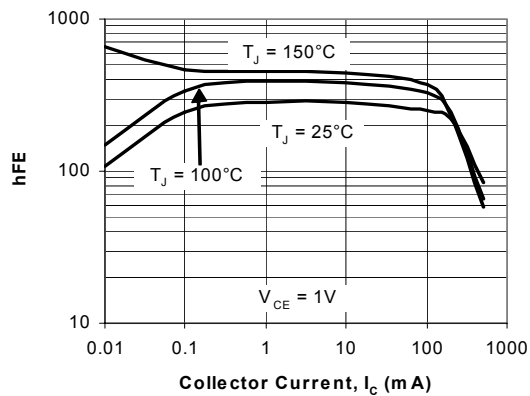


Fig. 2. BC337-25 Typical h<sub>FE</sub> vs. I<sub>C</sub>

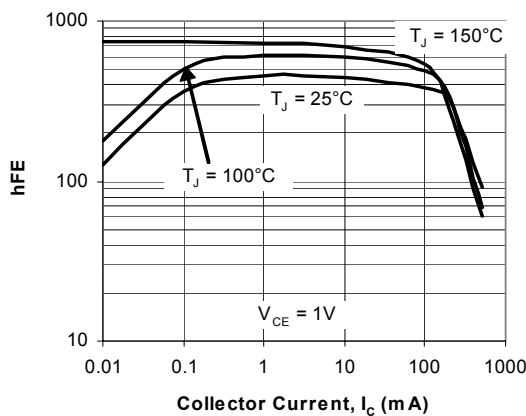


Fig. 3. BC337-40 Typical h<sub>FE</sub> vs. I<sub>C</sub>

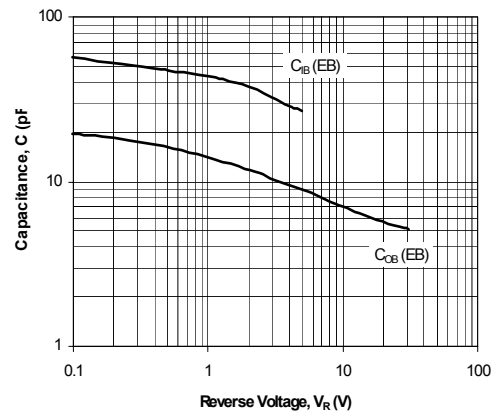
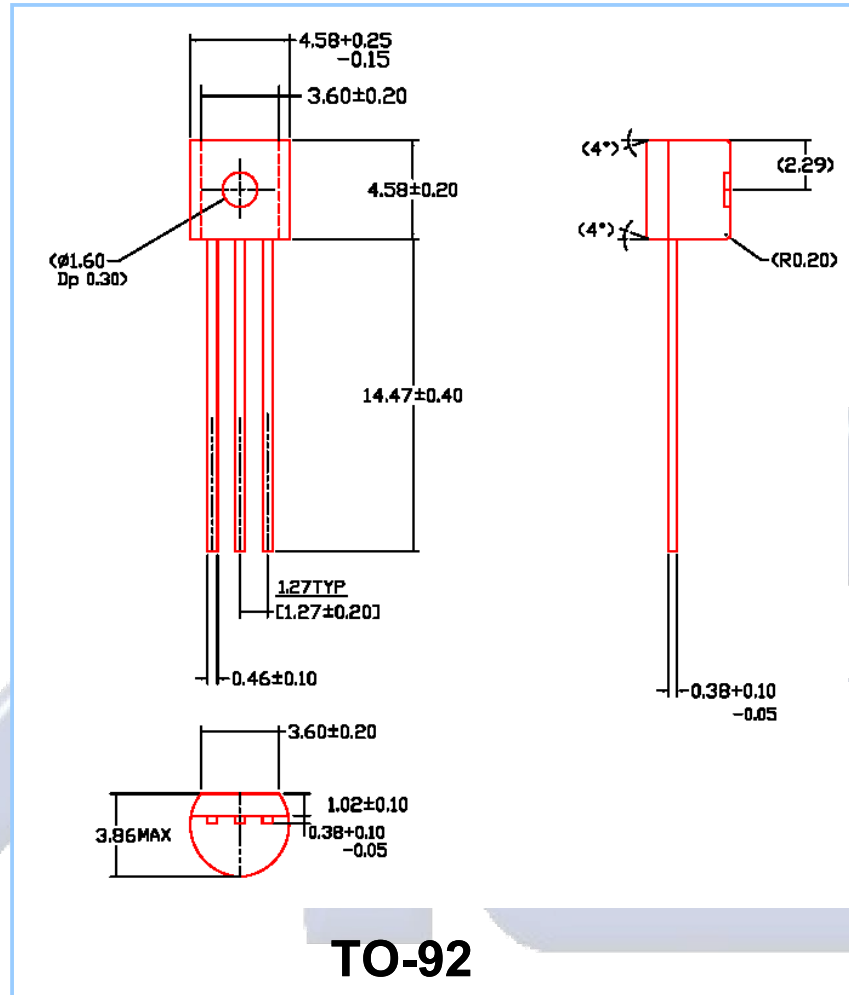


Fig. 4. Typical Capacitances

**TO-92 PACKAGE OUTLINE**

*Electrónica S.A. de C.V.*

**ORDER INFORMATION**

BC327-xx B – Bulk 5,000 per box  
 BC327-xx T/R – Tape and Reel, 2,000 per reel  
 BC327-xx A/B – Ammo Pack, 2,000 Per Ammo Pack

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