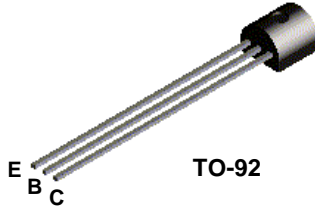


**BC337-16**  
**BC337-25**



**NPN General Purpose Amplifier**

This device is designed for use as general purpose amplifiers and switches requiring collector currents to 500 mA. Sourced from Process 12. See TN3019A for characteristics.

**Absolute Maximum Ratings\***

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>CES</sub>	Collector-Base Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	5.0	V
I <sub>C</sub>	Collector Current - Continuous	1.0	A
T <sub>J</sub> , T <sub>stg</sub>	Operating and Storage Junction Temperature Range	-55 to +150	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

**Thermal Characteristics**

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		BC337-16 / BC337-25	
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	625	mW
		5.0	mW/°C
R <sub>θJC</sub>	Thermal Resistance, Junction to Case	83.3	°C/W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	200	°C/W

**NPN General Purpose Amplifier**  
(continued)

**BC337-16 / BC337-25**

**Electrical Characteristics**

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
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**OFF CHARACTERISTICS**

V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	45		V
V <sub>(BR)CES</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 100 μA, I <sub>E</sub> = 0	50		V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 100 μA, I <sub>C</sub> = 0	5.0		V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 20 V, I <sub>E</sub> = 0, T <sub>A</sub> = +25 °C V <sub>CB</sub> = 20 V, I <sub>E</sub> = 0, T <sub>A</sub> = +150 °C		100 5.0	nA μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5.0 V, I <sub>C</sub> = 0		10	μA

**ON CHARACTERISTICS**

h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = 1.0 V, I <sub>C</sub> = 100 mA <b>337-16</b> <b>337-25</b>	100 160 40	250 400	
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA		0.7	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	V <sub>CE</sub> = 1.0 V, I <sub>C</sub> = 500 mA		1.2	V

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## PRODUCT STATUS DEFINITIONS

### Definition of Terms

Datasheet Identification	Product Status	Definition
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