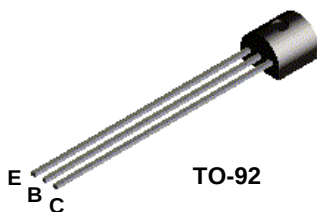


BC337-16 BC337-25



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 _{CEO}	Collector-Emitter Voltage	45	V
V _{CES}	Collector-Base Voltage	50	V
V _{EBO}	Emitter-Base Voltage	5.0	V
I _C	Collector Current - Continuous	1.0	A
T _J , T _{stg}	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 _D	Total Device Dissipation	625	mW
	Derate above 25°C	5.0	mW/°C
R _{θJC}	Thermal Resistance, Junction to Case	83.3	°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	200	°C/W

NPN General Purpose Amplifier
(continued)

Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
OFF CHARACTERISTICS					
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10 mA, I _B = 0	45		V
V _{(BR)CES}	Collector-Base Breakdown Voltage	I _C = 100 µA, I _E = 0	50		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 100 µA, I _C = 0	5.0		V
I _{CBO}	Collector Cutoff Current	V _{CB} = 20 V, I _E = 0, T _A = +25 °C V _{CB} = 20 V, I _E = 0, T _A = +150 °C		100 5.0	nA µA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5.0 V, I _C = 0		10	µA
ON CHARACTERISTICS					
h _{FE}	DC Current Gain	V _{CE} = 1.0 V, I _C = 100 mA 337-16 337-25 V _{CE} = 1.0 V, I _C = 500 mA	100 160 40	250 400	
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} = 1.0 V, I _C = 500 mA		1.2	V

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