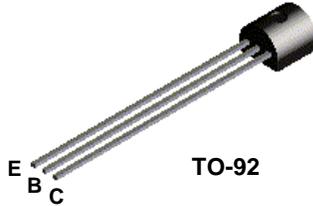


BC337-16
BC337-25



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 Derate above 25°C	625	mW
		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)

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Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
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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	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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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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