FAIRCHILD SEMICONDUCTOR®

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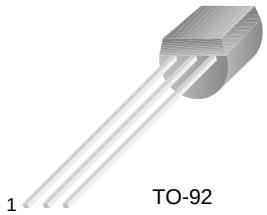
BC337A
NPN Medium Power Transistor

- This device is designed for general purpose amplifier application at collector currents to 800m
- Sourced from process 38.



TO-92

1. Collector 2. Base 3. Emitter

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	60	V
V_{CES}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	800	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 ~ 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 T_a=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	625 5.0	mW mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	83.3	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	°C/W

*Device mounted on FR-4 PCB 1.6” X 1.6” X 0.06”.

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 10mA	60			V
BV_{CES}	Collector-Emitter Cutoff Voltage	I_C = 100μA	60			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 100μA	5			V
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V			10	μA
I_{CBO}	Collector Cut-off Current	V_{CB} = 20V, T = 25 °C T = 150 °C			0.1 5	μA
h_{FE}	DC Current Gain	V_{CE} = 1V, I_C = 100mA V_{CE} = 1V, I_C = 500mA	100 40	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} = 5V, I_C = 2mA			1.2	V

Notes:

1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150degrees C.

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Rev. I30