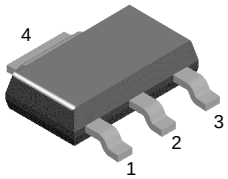
FAIRCHILD
SEMICONDUCTOR®

BCP51

PNP General Purpose Amplifier

- This device is designed for general purpose medium power amplifiers and switches requiring collecor currents to 1.0A.
- Sourced from process 77.



SOT-223

1. Base 2. Collector 3. Emitter

Absolute Maximum Ratings* T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{CBO}	Collector-Base Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current - Continuous	-1.5	A
T_J, T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 150	°C

* These ratings are limiting values above whitch the serviceability of any semiconductor device may be impaird.

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.

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)CEO}$	Collector-Emitter Sustaining Voltage	I_C = -10mA, I_B = 0	-45		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = -100µA, I_E = 0	-45		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = -10µA, I_C = 0	-5.0		V
I_{CBO}	Collector Cutoff Current	V_{CB} = -30V, I_E = 0 V_{CB} = -30V, I_E = 0, T_a = 125°C		-100 -10	nA µA
I_{EBO}	Emitter Cut-off Current	V_{EB} = -5.0V, I_C = 0		-10	µA
On Characteristics					
h_{FE}	DC Current Gain	I_C = -5.0mA, V_{CE} = -2.0V I_C = -150mA, V_{CE} = -2.0 I_C = -500mA, V_{CE} = -2.0V	25 40 25	 250 	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = -500mA, I_B = -50mA		-0.5	V
V_{BE}(on)	Base-Emitter On Voltage	I_C = -500mA, V_{CE} = -2.0V		-1.0	V

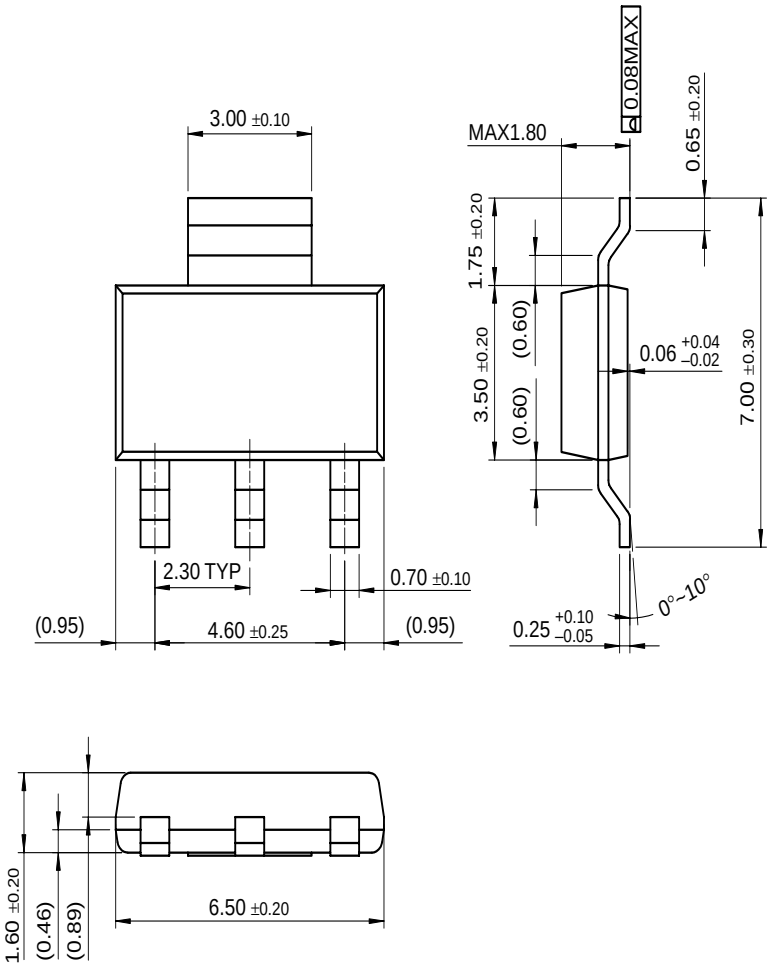
Thermal Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	1.0 8.0	W mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	125	°C/W

* Device mounted on FR-4PCB 36mm × 18mm × 1.5mm; mounting pad for the collector lead min. 6cm^2.

Package Dimensions

SOT-223



Dimensions in Millimeters

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