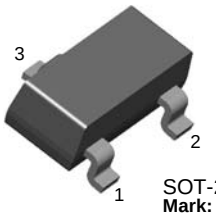
FAIRCHILD SEMICONDUCTOR®

February 2010

BCW69
PNP General Purpose Amplifier

Features

- This device is designed for general purpose medium power amplifiers and switches requiring collector currents to 100mA.
- Sourced from process 68.



SOT-23
Mark: H1

1. Base 2. Emitter 3. Collector

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current - Continuous	-100	mA
T_J, T_{STG}	Junction and Storage Temperature	-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 T_A = 25°C unless otherwise noted

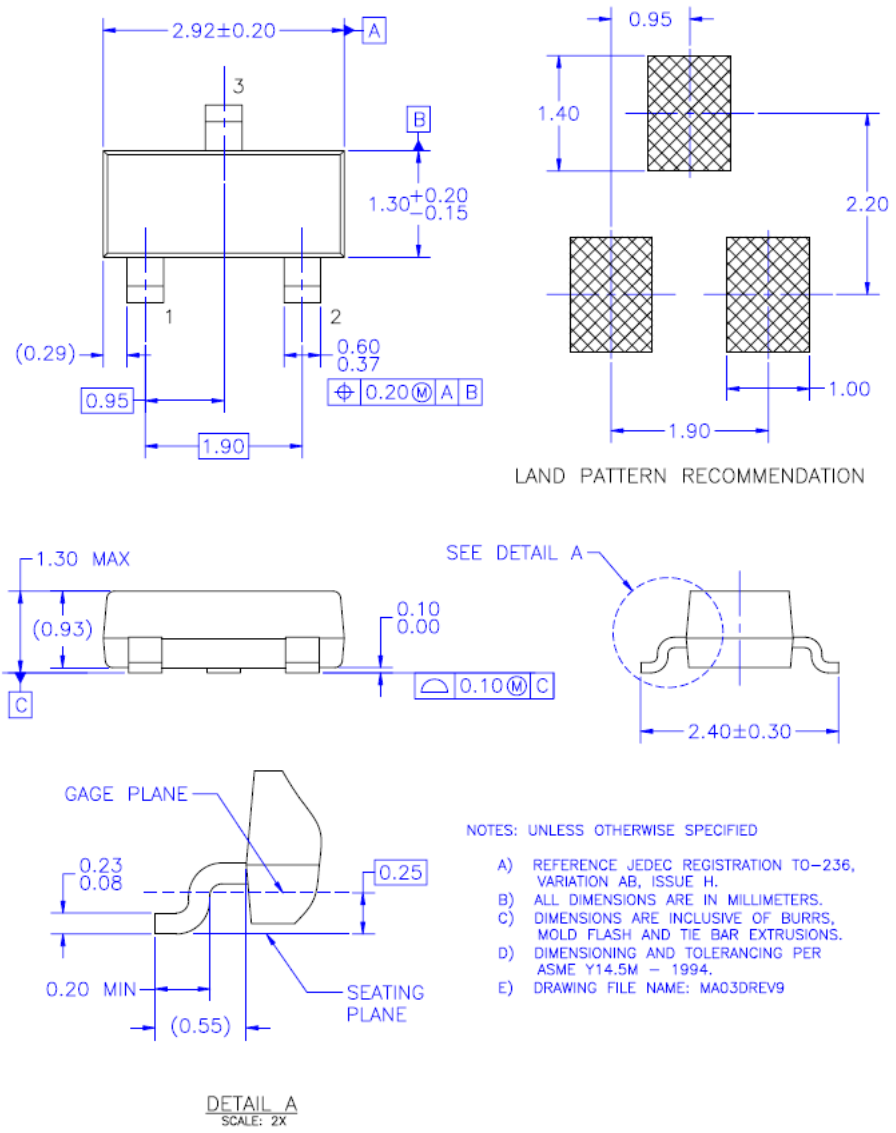
Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
Off Characteristics					
$BV_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C=-10μA, I_E=0	-50		V
$BV_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=-2.0mA, I_B=0	-45		V
$BV_{(BR)CES}$	Collector-Emitter Breakdown Voltage	I_C=-10μA, I_E=0	-50		V
$BV_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E=-10μA, I_C=0	-5.0		V
I_{CBO}	Collector Cut-off Current	V_{CB}=-20V, I_E=0 V_{CB}=-20V, I_E=0, T_A=100°C		-100 -10	nA μA
On Characteristics					
h_{FE}	DC Current Gain	V_{CE}=-5.0V, I_C=-2.0mA	120	260	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C=-10mA, I_B=-0.5mA		-0.3	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE}=-5.0V, I_C=-2.0mA	-0.6	-0.75	V
Small Signal Characteristics					
NF	Noise Figure	V_{CE}=-5.0V, I_C=-200μA, R_S=2.0kΩ, f=1.0kHz, B_W=200Hz		10	dB

Physical Dimension

SOT-23



Dimensions in Millimeters

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