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BC369



PNP General Purpose Amplifier

This device is designed for general purpose medium power amplifiers and switches requiring collector currents to 1.2 A. Sourced from Process 77.

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	20	V
V _{CES}	Collector-Base Voltage	25	V
V _{EBO}	Emitter-Base Voltage	5.0	V
I _C	Collector Current - Continuous	1.5	Α
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.

- These ratings are based on a maximum junction temperature of 150 degrees C.
 These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
 All voltages (V) and currents (A) are negative polarity for PNP transistors.

Thermal Characteristics TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units	
		BC369		
P _D	Total Device Dissipation	625	mW	
	Derate above 25°C	5.0	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	

PNP General Purpose Amplifier

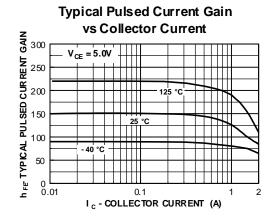
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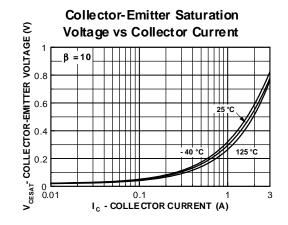
V(BR)CEO V(BR)CES V(BR)EBO ICBO	Collector-Emitter Breakdown Voltage Collector-Base Breakdown Voltage Emitter-Base Breakdown Voltage Collector-Cutoff Current Emitter-Cutoff Current	$\begin{split} I_C &= 10 \text{ mA}, \ I_B = 0 \\ I_C &= 100 \ \mu\text{A}, \ I_E = 0 \\ I_E &= 10 \ \mu\text{A}, \ I_C = 0 \\ V_{CB} &= 25 \ V, \ I_E = 0, \ T_A = 150^{\circ}\text{C} \\ V_{EB} &= 5.0 \ V, \ I_C = 0 \end{split}$	20 25 5.0	10 1.0 10	V V V μΑ mA
V _(BR) CES V _(BR) EBO I _{CBO} I _{EBO}	Collector-Base Breakdown Voltage Emitter-Base Breakdown Voltage Collector-Cutoff Current	$\begin{split} I_C &= 100 \ \mu\text{A}, \ I_E = 0 \\ I_E &= 10 \ \mu\text{A}, \ I_C = 0 \\ V_{CB} &= 25 \ V, \ I_E = 0 \\ V_{CB} &= 25 \ V, \ I_E = 0, \ T_A = 150^{\circ}\text{C} \end{split}$	25	1.0	V V μA mA
V _{(BR)EBO} I _{CBO} I _{EBO} ON CHARA	Emitter-Base Breakdown Voltage Collector-Cutoff Current	$I_E = 10 \mu A, I_C = 0$ $V_{CB} = 25 \text{ V}, I_E = 0$ $V_{CB} = 25 \text{ V}, I_E = 0, T_A = 150^{\circ}\text{C}$		1.0	V μA mA
I _{CBO} I _{EBO} ON CHARA	Collector-Cutoff Current	V _{CB} = 25 V, I _E = 0 V _{CB} = 25 V, I _E = 0, T _A = 150°C	5.0	1.0	μA mA
I _{EBO}		$V_{CB} = 25 \text{ V}, I_E = 0, T_A = 150^{\circ}\text{C}$		1.0	mA
ON CHARA	Emitter-Cutoff Current			10	μΑ
		1			
	ACTERISTICS DC Current Gain	$I_C = 5.0$ mA, $V_{CE} = 10$ V $I_C = 0.5$ A, $V_{CE} = 1.0$ V $I_C = 1.0$ A, $V_{CE} = 1.0$ V	50 85 60	375	
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.0 A, I _B = 100 mA		0.5	V
V _{BE(on)}	Base-Emitter On Voltage	$I_C = 1.0 \text{ A}, V_{CE} = 1.0 \text{ V}$		1.0	V
SMALL SIC	GNAL CHARACTERISTICS				MHz

f = 35 MHz

NOTE: All voltages (V) and currents (A) are negative polarity for PNP transistors.

Typical Characteristics

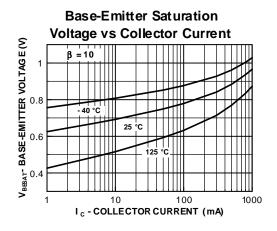


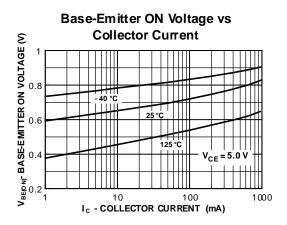


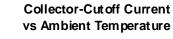
PNP General Purpose Amplifier

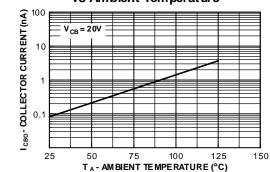
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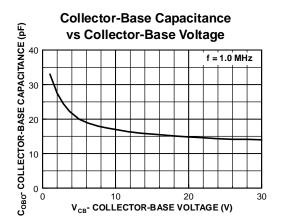
Typical Characteristics (continued)



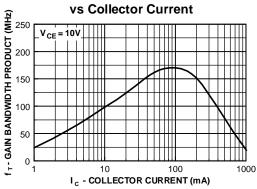




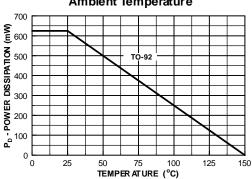




Gain Bandwidth Product vs Collector Current







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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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