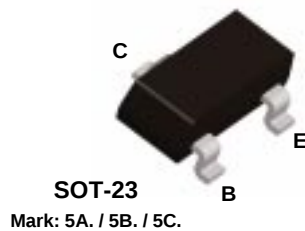


BC807-16 BC807-25 BC807-40



PNP General Purpose Amplifier

This device is designed for general purpose amplifier and switching applications at currents to 1.0 A. Sourced from Process 78.

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	1.2	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
		*BC807-16 / -25 / -40	
P _D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	357	°C/W

*Device mounted on FR-4 PCB 40 mm X 40 mm X 1.5 mm.

PNP General Purpose Amplifier
(continued)

Electrical Characteristics

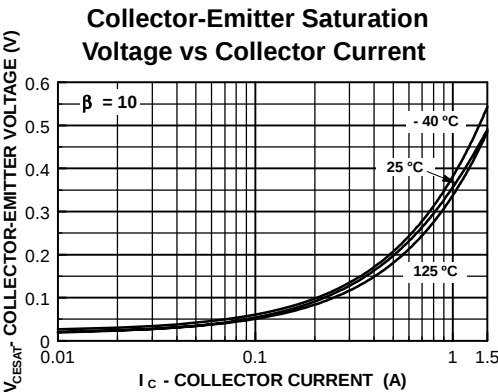
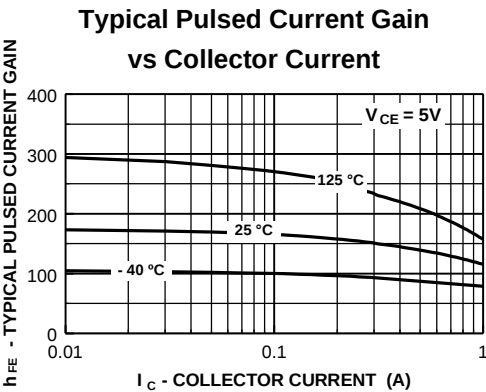
TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
OFF CHARACTERISTICS					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10 \text{ mA}$, $I_B = 0$	45		V
$V_{(BR)CES}$	Collector-Base Breakdown Voltage	$I_C = 100 \text{ }\mu\text{A}$, $I_E = 0$	50		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10 \text{ }\mu\text{A}$, $I_C = 0$	5.0		V
I_{CBO}	Collector-Cutoff Current	$V_{CB} = 20 \text{ V}$ $V_{CB} = 20 \text{ V}$, $T_A = 150^\circ\text{C}$		100 5.0	nA μA

ON CHARACTERISTICS

h_{FE}	DC Current Gain	$I_C = 100 \text{ mA}$, $V_{CE} = 1.0 \text{ V}$ - 16 - 25 - 40 $I_C = 500 \text{ mA}$, $V_{CE} = 1.0 \text{ V}$	100 160 250 40	250 400 600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$		0.7	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 500 \text{ mA}$, $V_{CE} = 1.0 \text{ V}$		1.2	V

Typical Characteristics

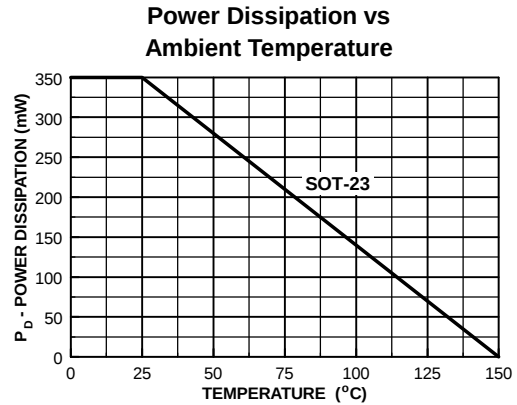
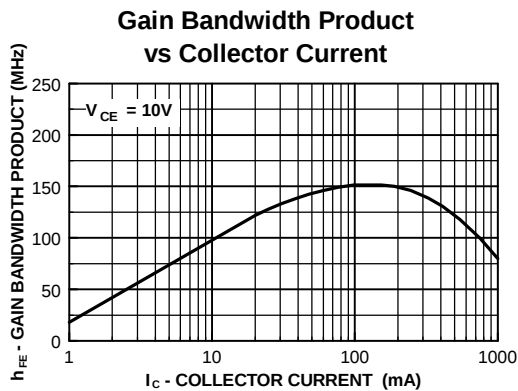
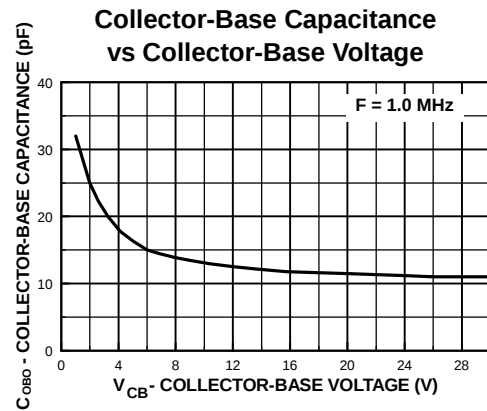
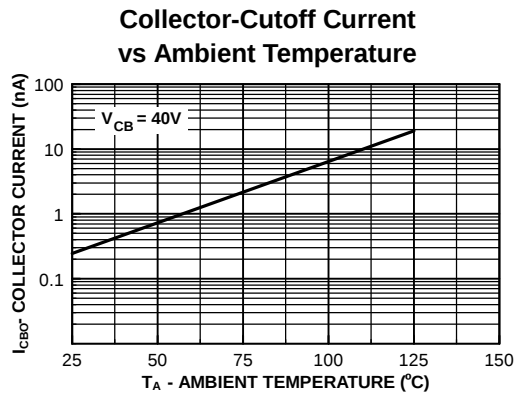
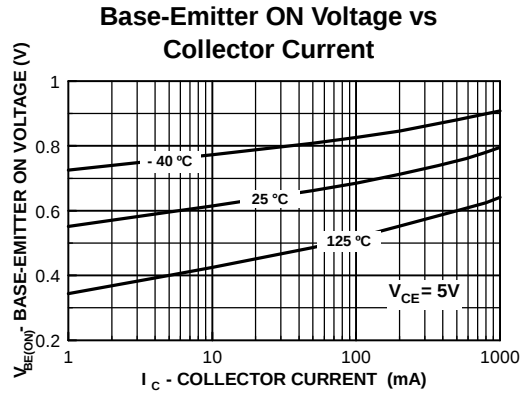
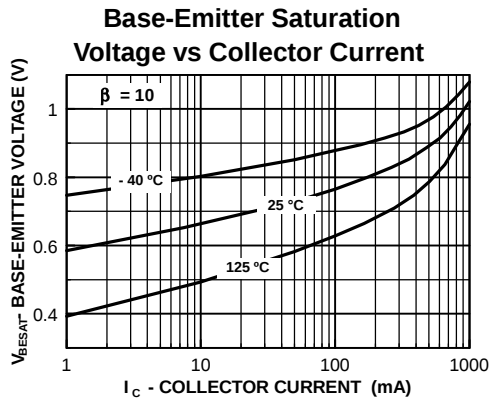


BC807-16 / BC807-25 / BC807-40

PNP General Purpose Amplifier (continued)

BC807-16 / BC807-25 / BC807-40

Typical Characteristics (continued)



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