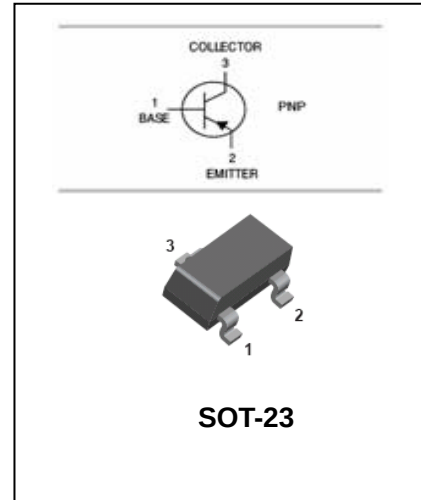


PNP General Purpose Amplifier**BC807-16/-25/-40****FEATURES**

- Ideally suited for automatic insertion.
- Complementary NPN type available
BC817
- Epitaxial planar die construction.



Lead-free

**APPLICATIONS**

- This device is designed for general purpose amplifier and switching applications at currents to 1.0A.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC807-16	5A1	SOT-23
BC807-25	5B	SOT-23
BC807-40	5C	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
P_D	Total Device Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	375	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-55to+150	°C

PNP General Purpose Amplifier**BC807-16/-25/-40****ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A$ $I_E=0$	-50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA$ $I_B=0$	-45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1\mu A$ $I_C=0$	-5		μV
Collector cut-off current	I_{CBO}	$V_{CB}=-45V$ $I_E=0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=-40V$ $I_B=0$		-0.2	μA
Emitter cut-off current	I_{EBO}	$V_{CE}=-4V$ $I_C=0$		-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-1V$ $I_C=-100mA$	100	250	
807-16					
807-25			160	400	
807-40			250	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-1.2	V
Transition frequency	f_T	$V_{CE}=-5V$ $I_C=-10mA$ $f=100MHz$	100		MHz

PNP General Purpose Amplifier

BC807-16/-25/-40

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

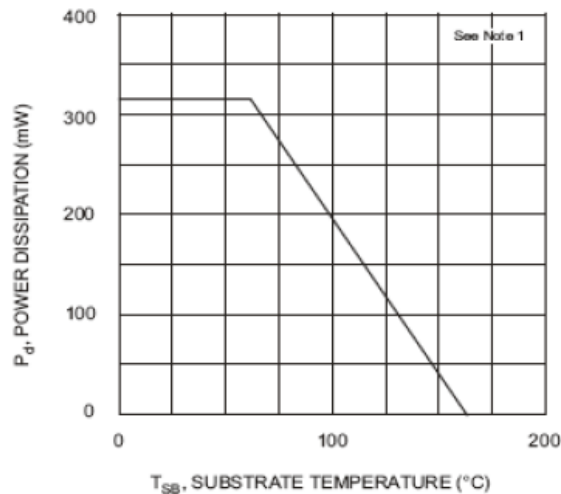


Fig. 1, Power Derating Curve

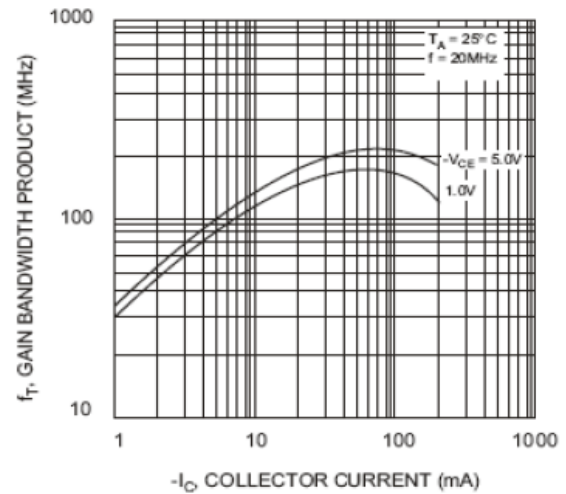


Fig. 2, Gain-Bandwidth Product vs Collector Current

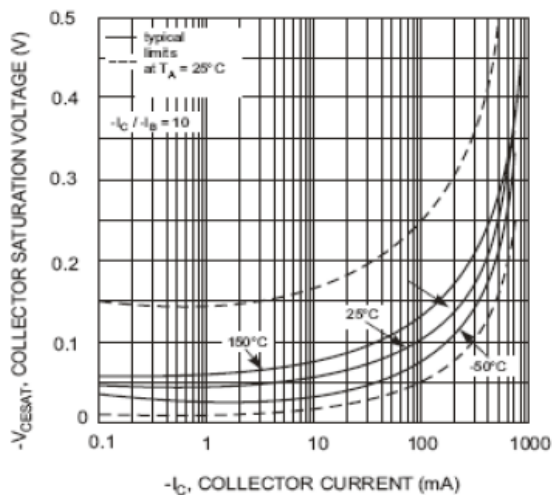


Fig. 3, Collector Sat Voltage vs Collector Current

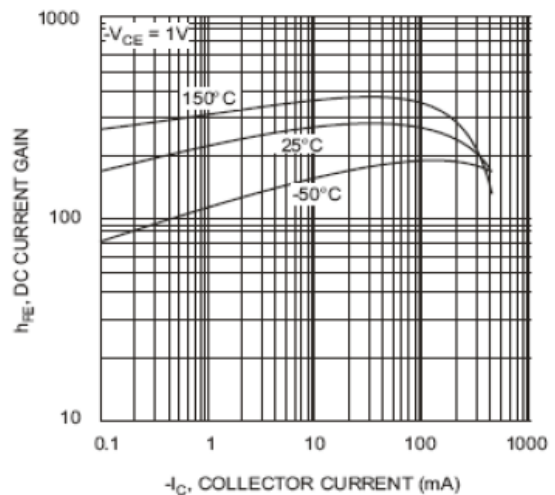


Fig. 4, DC Current Gain vs Collector Current

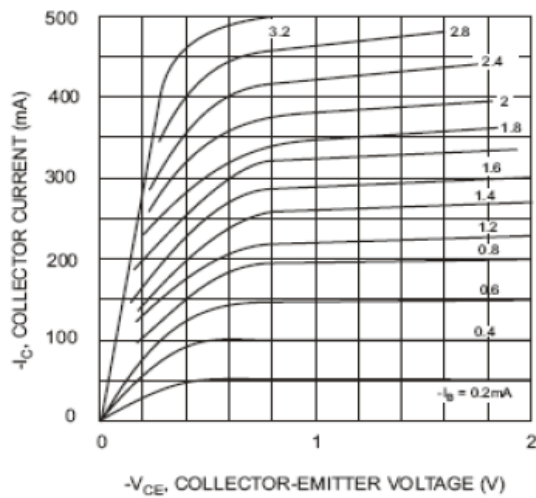


Fig. 5, Typical Emitter-Collector Characteristics

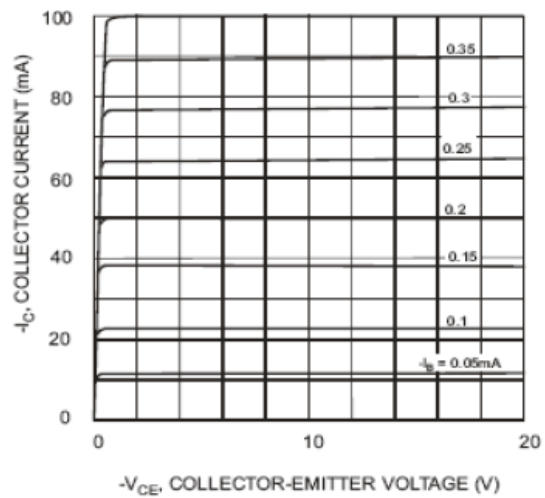


Fig. 6, Typical Emitter-Collector Characteristics

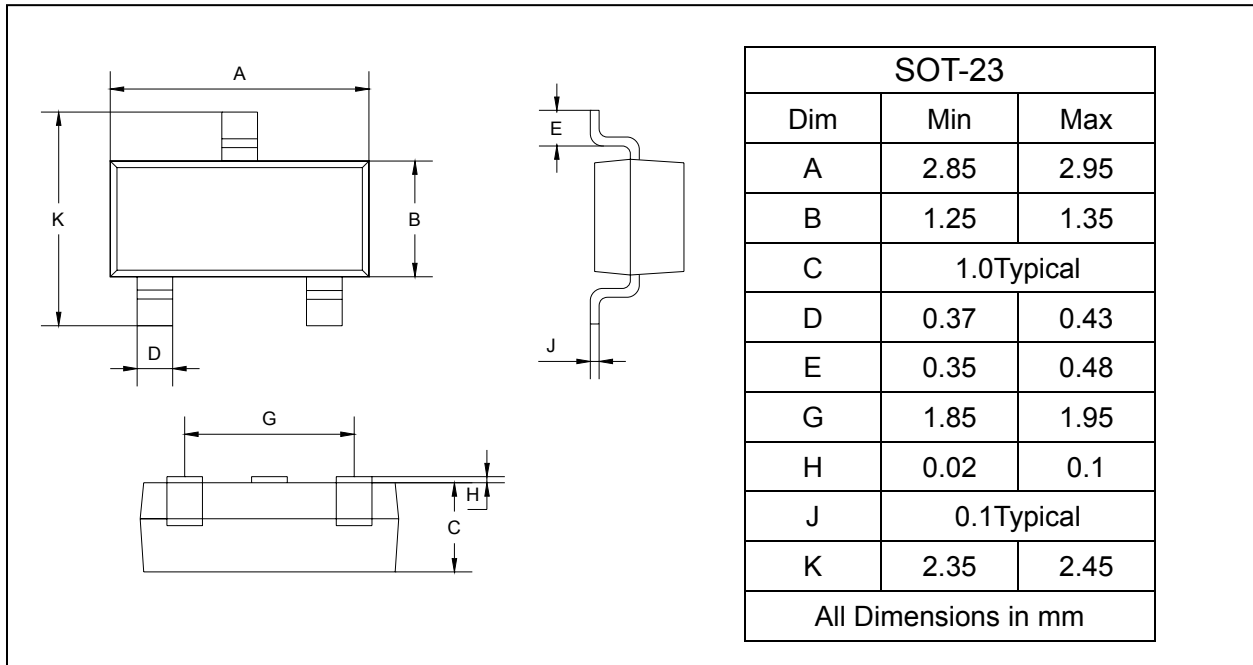
PNP General Purpose Amplifier

BC807-16/-25/-40

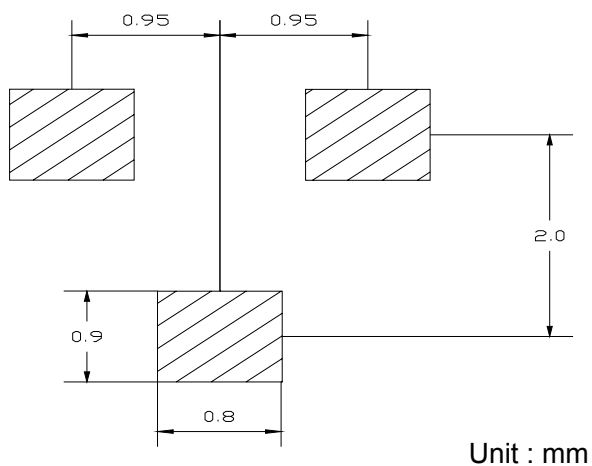
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BC807-16/-25/-40	SOT-23	3000/Tape&Reel