

BC807-16 BC807-25 BC807-40

0.3 Watts PNP Plastic-Encapsulate Transistors



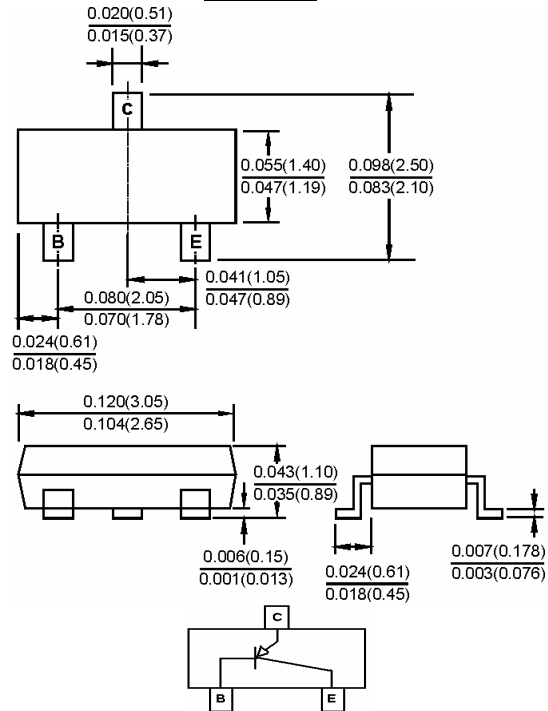
Features

- ✧ Ideally suited for automatic insertion
- ✧ Epitaxial planar die construction
- ✧ For switching, AF driver and amplifier applications
- ✧ Complementary NPN type available(BC817)
- ✧ Qualified to AEC-Q101 standards for high reliability

Mechanical Data

- ✧ Case: SOT-23, Molded plastic
- ✧ Case material: molded plastic. UL flammability classification rating 94V-0
- ✧ Moisture sensitivity: Level 1 per J-STD-020C
- ✧ Terminals: Solderable per MIL-STD-202, Method 208
- ✧ Lead free plating
- ✧ Marking: -16:5A, -25: 5B, -40: 5C
- ✧ Weight: 0.008 grams(approximate)

SOT-23



Dimensions in inches and (millimeters)

Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	BC807 -16	BC807 -25	BC807 -40	Units
Collector-base breakdown voltage $I_C=-10\mu A, I_E=0$	V_{CBO}	-50			V
Collector-emitter breakdown voltage $I_C=-10mA, I_B=0$	V_{CEO}	-45			V
Collector current - continuous	I_C	-0.5			A
Power dissipation	P_C	0.3			W
Emitter-base breakdown voltage $I_E=-1\mu A, I_C=0$	V_{EBO}	-5			V
Collector cut-off current $V_{CB}=-45V I_E=0$	I_{CBO}	-0.1			μA
Collector cut-off current $V_{CE}=-40V I_B=0$	I_{CEO}	-0.2			μA
Emitter cut-off current $V_{EB}=-4V I_C=0$	I_{EBO}	-0.1			μA
Collector-emitter saturation voltage $I_C=-500mA, I_B=-50mA$	$V_{CE}(sat)$	-0.7			V
Base-emitter saturation voltage $I_C=-500mA, I_B=-50mA$	$V_{BE}(sat)$	-1.2			V
Transition frequency $V_{CE}=-5V I_C=-10mA f=100MHz$	f_T	100			MHz
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150			$^{\circ}C$
Type Number	Symbol	Min	Max	Units	
DC current gain 807-16	$H_{FE(1)}$	100	250		
807-25		160	400		
807-40		250	600		

Version: B07

RATINGS AND CHARACTERISTIC CURVES(BC807-16, BC807-25, BC807-40)

FIG.1- POWER DERATING CURVE

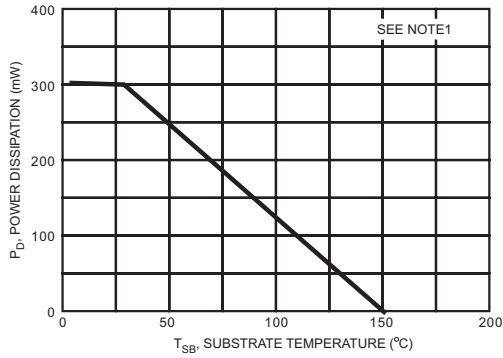


FIG.2- GAIN BANDWIDTH PRODUCT VS COLLECTOR CURRENT

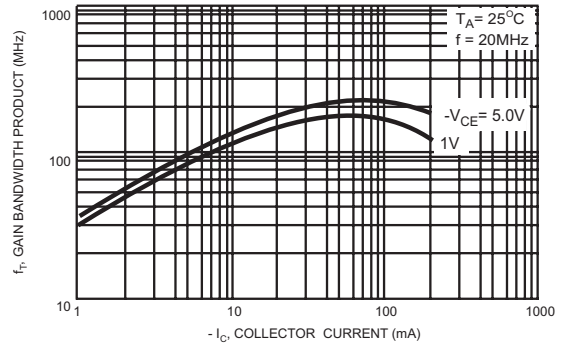


FIG.3-COLLECTOR SAT VOLTAGE VS COLLECTOR CURRENT

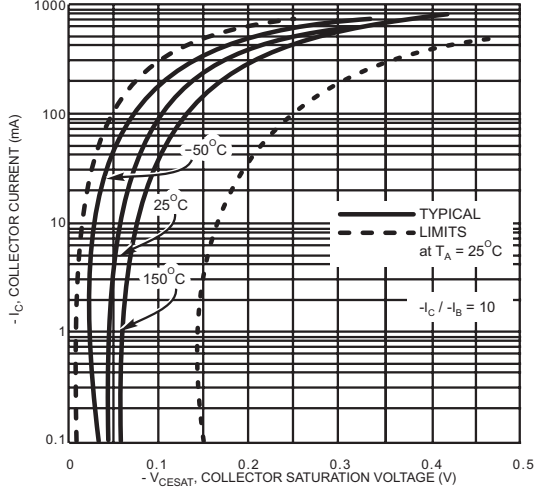


FIG.4- DC CURRENT GAIN VS COLLECTOR CURRENT

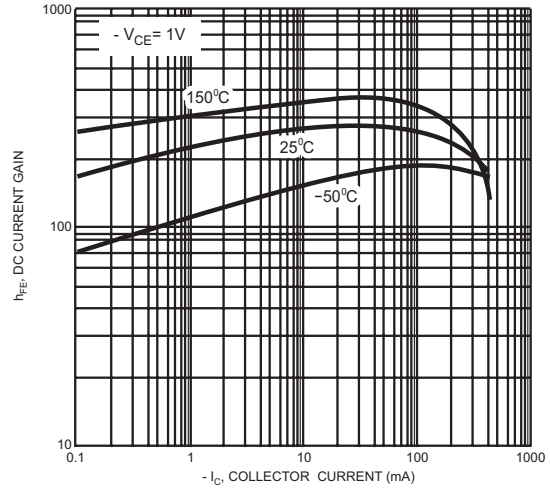


FIG.5- TYPICAL EMITTER-COLLECTOR CHARACTERISTICS

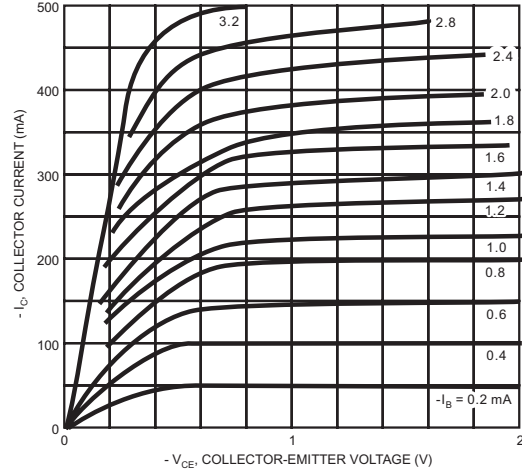
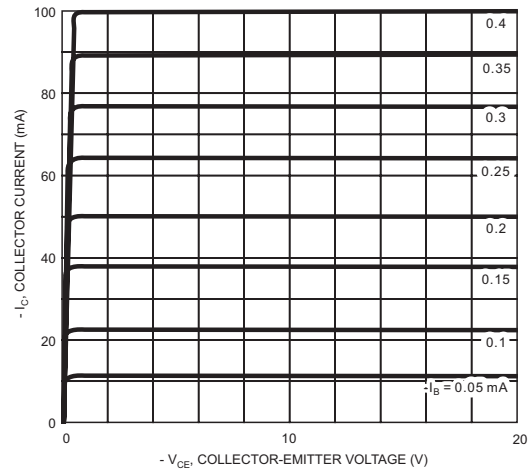


FIG.6- TYPICAL EMITTER-COLLECTOR CHARACTERISTICS



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