FEATURES

Ldeally suited for automatic insertion

epitaxial planar die construction

complementary NPN type available(BC817)

BC807-16 (PNP)
BC807-25 (PNP)
BC807-40 (PNP)

Marking

BC807-16	BC807-25	BC807-40
5A	5B	5C

1. BASE
2. EMITTER
3. COLLECTO

SOT-23

MAXIMUM RATINGS (TA=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-500	mA
Collector Power Dissipation	PC	300	mW
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55 to +150	℃
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	℃/W

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage		VCBO	IC= -10μA, IE=0	-50		V
Collector-emitter breakdown voltage		VCEO	IC= -10mA, IB=0	-45		V
Emitter-base breakdown voltage		VEBO	IE= -1μA, IC=0	-5		V
Collector cut-off current		ICBO	VCB= -45V, IE=0		-0.1	u A
Collector cut-off current		ICEO	VCE= -40V, IB=0		-0.2	u A
Emitter cut-off current		IEBO	VEB= -4 V, IC=0		-0.1	u A
DC current gain	807-16	hFE	VCE= -1V, IC= -100mA	100	250	
	807-25			160	400	
	807-40			250	600	
Collector-emitter saturation voltage		VCE(sat)	IC=-500mA, IB= -50mA		-0.7	V
Base-emitter saturation voltage		VBE(sat)	IC= -500mA, IB= -50mA		-1.2	V
Transition frequency		fT	VCE= -5V, IC= -10mA f=100MHz	100		MHz
collector capacitance		Cc	IE = 0; VCB = -10 V f = 1 MHz		9	PF

BC807-16
BC807-25 Typical Characteristics
BC807-40

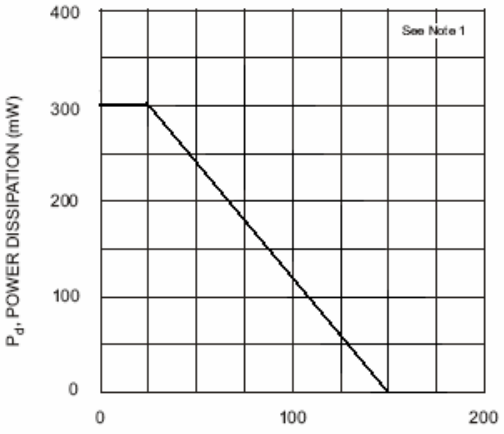

Fig. 1, Power Derating Curve

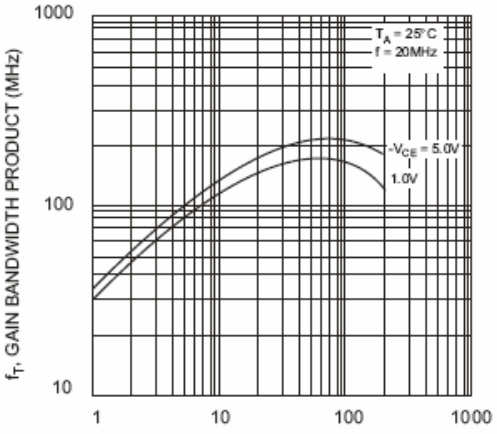

Fig. 2, Gain-Bandwidth Product vs Collector Current

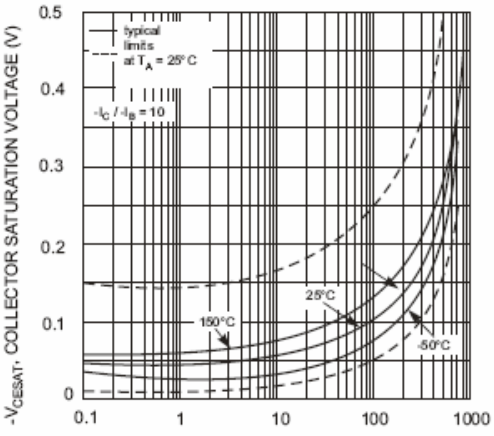

Fig. 3, Collector Sat. Voltage vs Collector Current

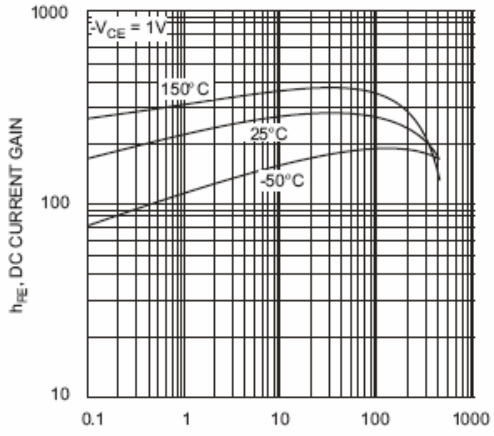

Fig. 4, DC Current Gain vs Collector Current

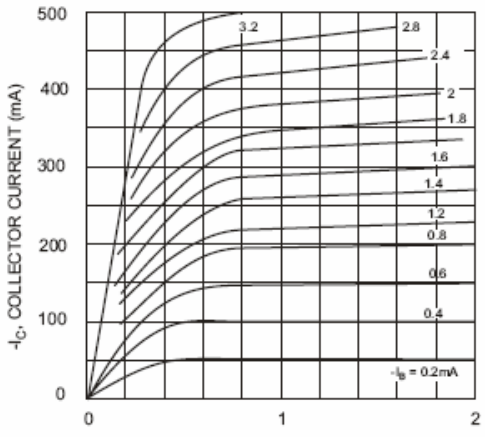

Fig. 5, Typical Emitter-Collector Characteristics

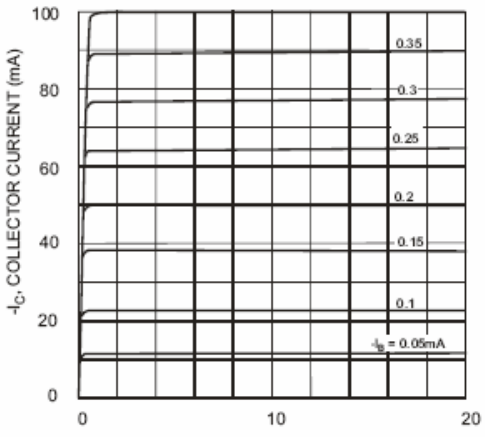

Fig. 6, Typical Emitter-Collector Characteristics