



PNP Silicon Epitaxial Planar Transistors

BC807-16LT1
BC807-25LT1
BC807-40LT1

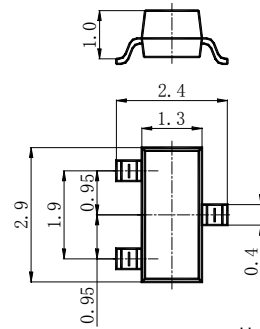
FEATURES

- Ideally suited for automatic insertion
- epitaxial planar die construction
- complementary NPN type available(BC817)

MARKING: 16LT1:5A1; 25LT1:5B; 40LT1:5C

SOT—23

- 1. BASE
- 2. EMITTER
- 3. COLLECTOR



Unit : mm

MAXIMUM RATINGS* T_A=25°C unless otherwise noted

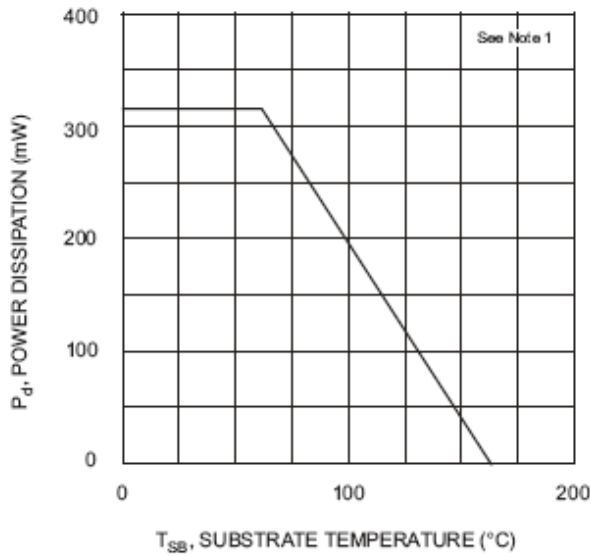
Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	-50	V
V _{CEO}	Collector-Emitter Voltage	-45	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.5	A
P _C	Collector Dissipation	0.3	W
T _J , T _{stg}	Junction and Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

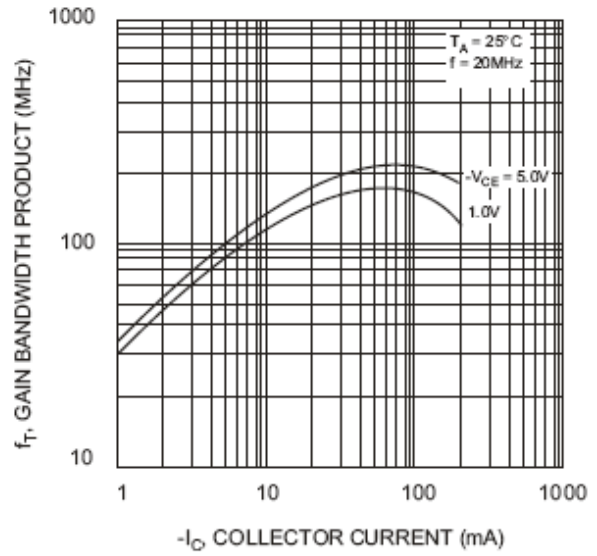
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{CBO}	I _C = -10 μ A, I _E =0	-50		V
Collector-emitter breakdown voltage	V _{CEO}	I _C = -10 mA, I _B =0	-45		V
Emitter-base breakdown voltage	V _{EBO}	I _E = -1 μ A, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} = -45 V, I _E =0		-0.1	μ A
Collector cut-off current	I _{CEO}	V _{CE} = -40 V, I _B =0		-0.2	μ A
Emitter cut-off current	I _{EBO}	V _{EB} = -4 V, I _C =0		-0.1	μ A
DC current gain	807-16 807-25 807-40	h _{FE} (1) V _{CE} = -1V, I _C = -100mA	100 160 250	250 400 600	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-500mA, I _B = -50 mA		-0.7	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -500 mA, I _B = -50mA		-1.2	V
Transition frequency	f _T	V _{CE} = -5 V, I _C = -10mA f=100MHz	100		MHz



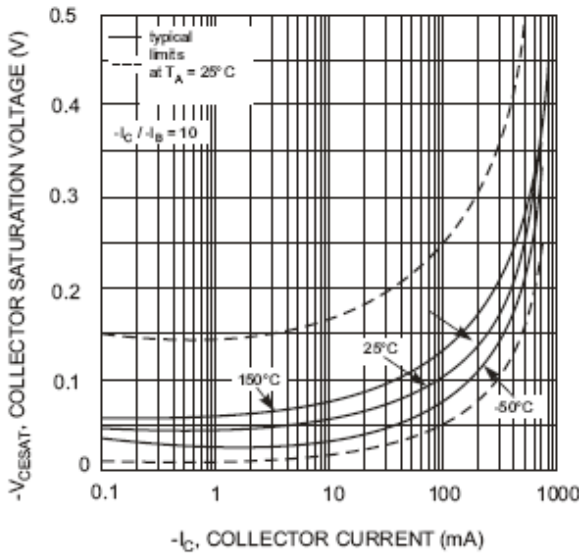
Typical Characteristics BC807-16,25,40LT1



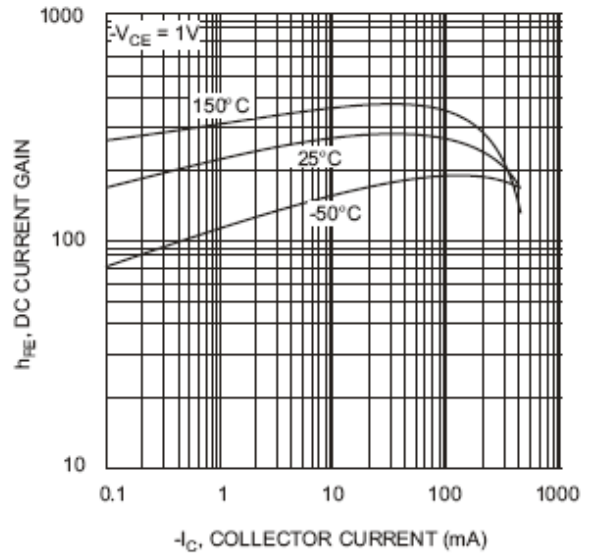
T_{SB} , SUBSTRATE TEMPERATURE (°C)
Fig. 1, Power Derating Curve



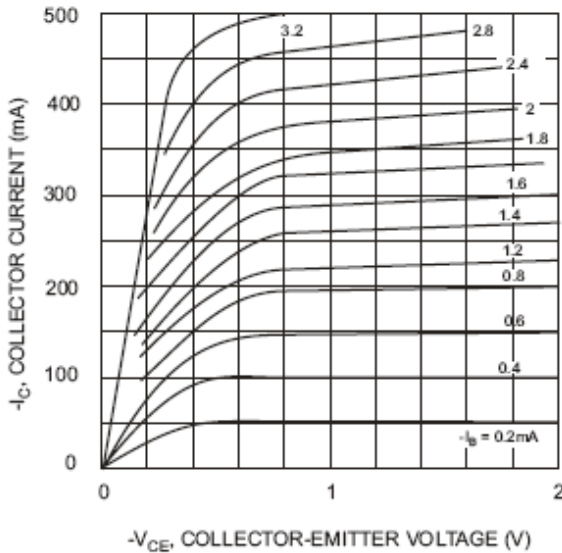
$-I_C$, COLLECTOR CURRENT (mA)
Fig. 2, Gain-Bandwidth Product vs. Collector Current



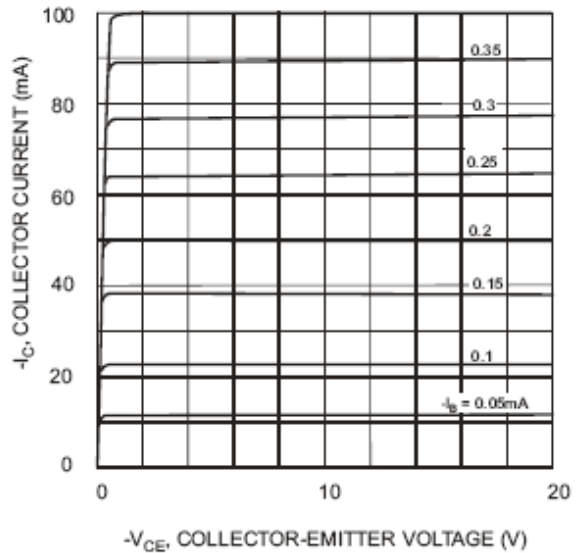
$-I_C$, COLLECTOR CURRENT (mA)
Fig. 3, Collector Sat Voltage vs. Collector Current



$-I_C$, COLLECTOR CURRENT (mA)
Fig. 4, DC Current Gain vs. Collector Current



$-V_{CE}$, COLLECTOR-EMITTER VOLTAGE (V)
Fig. 5, Typical Emitter-Collector Characteristics



$-V_{CE}$, COLLECTOR-EMITTER VOLTAGE (V)
Fig. 6, Typical Emitter-Collector Characteristics