

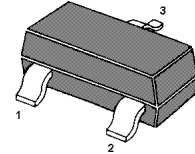


TRANSISTOR (PNP)

FEATURES

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

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MARKING: 807-16:5A; 807-25:5B; 807-40:5C

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-50	V
V _{CE0}	Collector-Emitter Voltage	-45	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.5	A
P _C	Collector Power Dissipation	0.3	W
T _j	Junction Temperature	150	°C
T _{stg}	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 _{CB0}	I _C = -10μA, I _E =0	-50		V
Collector-emitter breakdown voltage	V _{CE0}	I _C = -10mA, I _B =0	-45		V
Emitter-base breakdown voltage	V _{EBO}	I _E = -1μA, I _C =0	-5		V
Collector cut-off current	I _{CB0}	V _{CB} = -45V, I _E =0		-0.1	μA
Collector cut-off current	I _{CE0}	V _{CE} = -40V, I _B =0		-0.2	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -4 V, I _C =0		-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} = -1V, I _C = -100mA	807-16	100	250
			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



Typical Characteristics

BC807-16/-25/-40

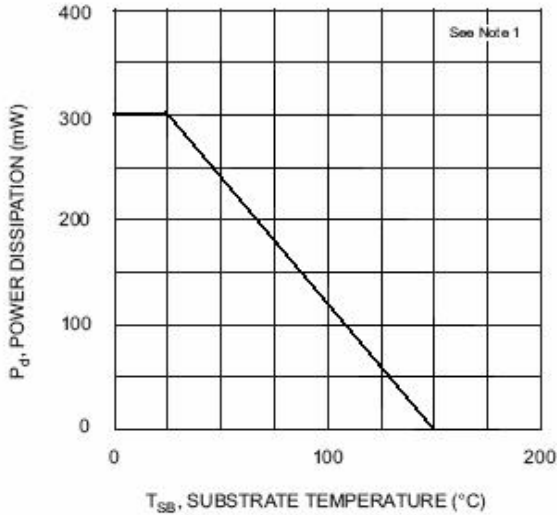


Fig. 1, Power Derating Curve

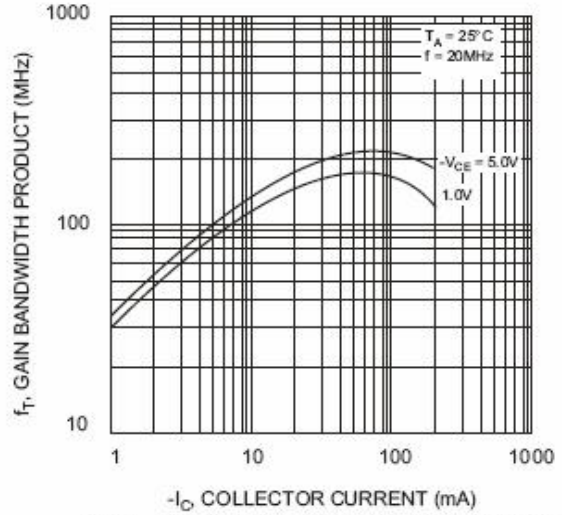


Fig. 2, Gain-Bandwidth Product vs. Collector Current

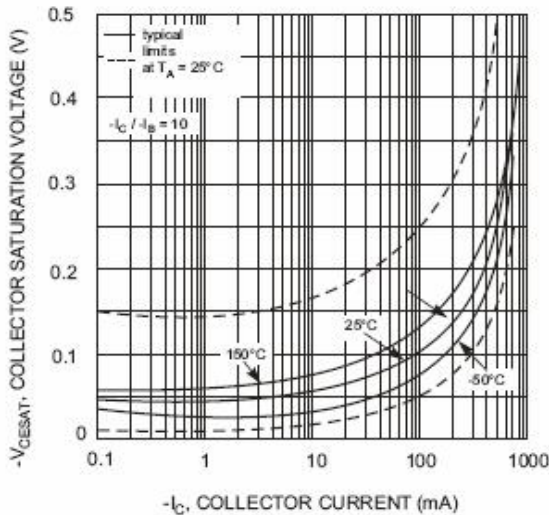


Fig. 3, Collector Sat. Voltage vs. Collector Current

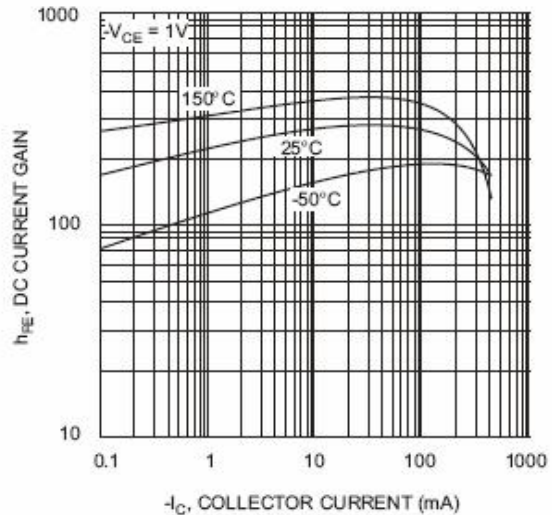


Fig. 4, DC Current Gain vs. Collector Current

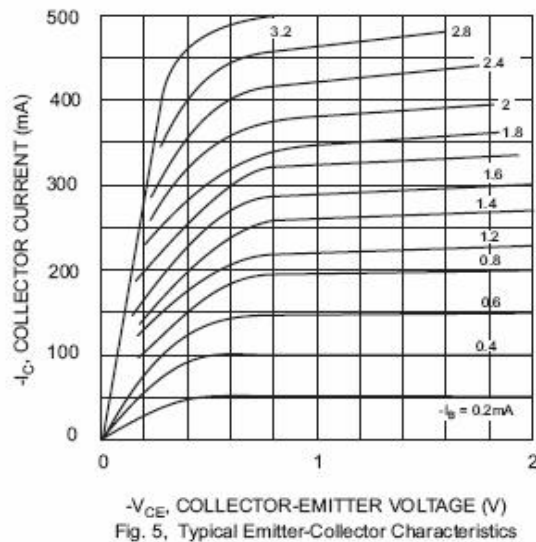


Fig. 5, Typical Emitter-Collector Characteristics

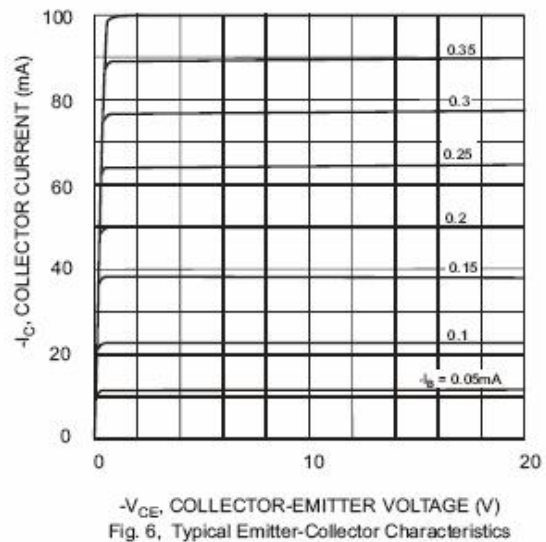


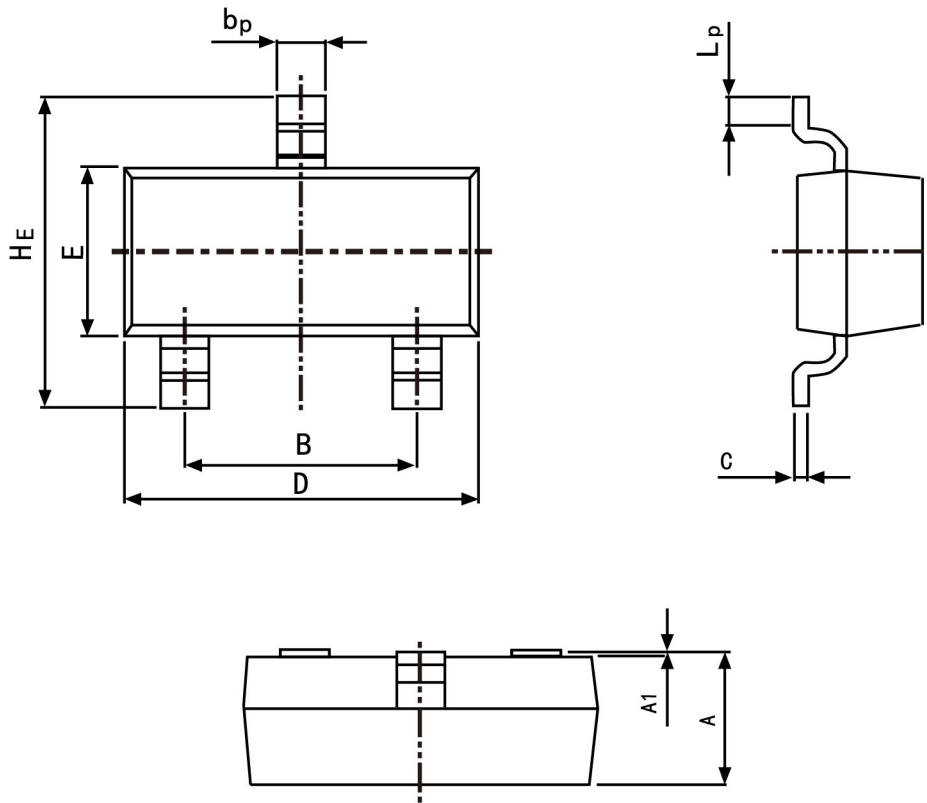
Fig. 6, Typical Emitter-Collector Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
b_p	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50