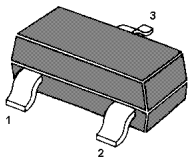
BC807… TRANSISTOR (PNP)

FEATURES

- **Ldeally 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℃ 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 Power Dissipation	0.3	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V_{CBO}	I_C= -10μA, I_E=0	-50		V
Collector-emitter breakdown voltage	V_{CEO}	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_{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_{EB}= -4 V, I_C=0		-0.1	μA
DC current gain **807-16**	$h_{FE(1)}$	V_{CE}= -1V, I_C= -100mA	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

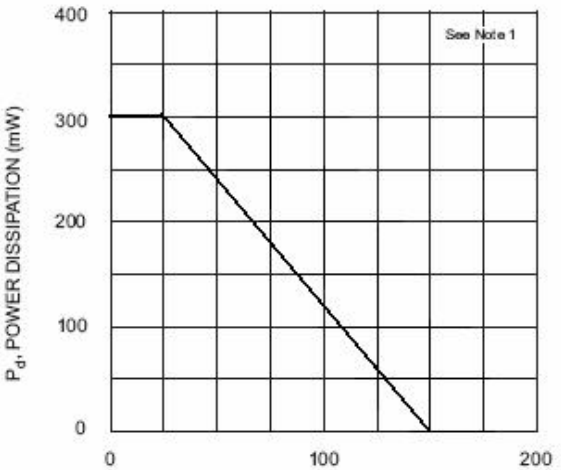


Fig. 1, Power Derating Curve

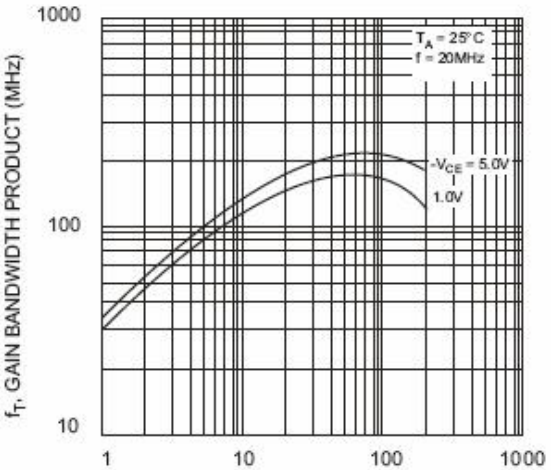


Fig. 2, Gain-Bandwidth Product vs Collector Current

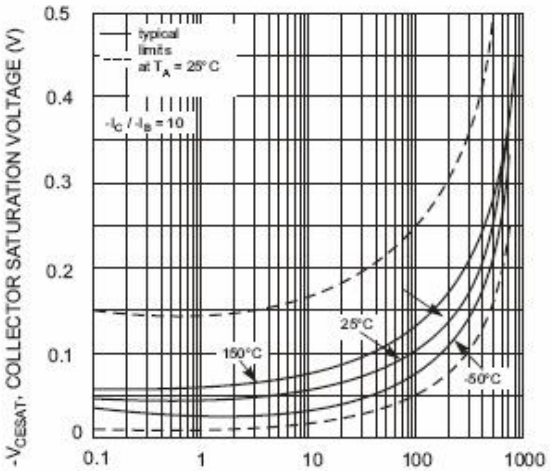


Fig. 3, Collector Sat. Voltage vs Collector Current

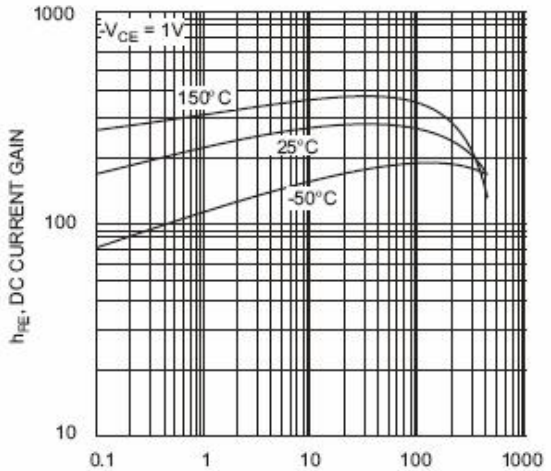


Fig. 4, DC Current Gain vs Collector Current

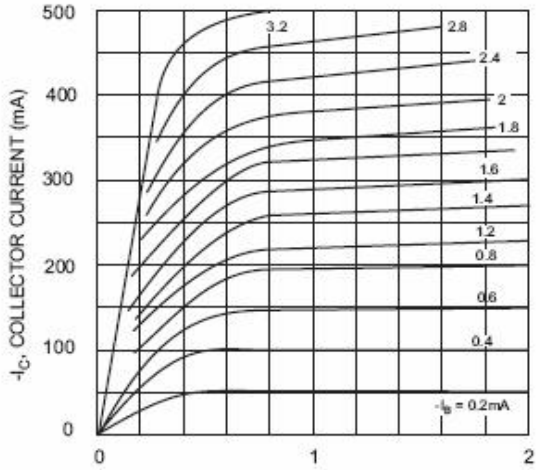


Fig. 5, Typical Emitter-Collector Characteristics

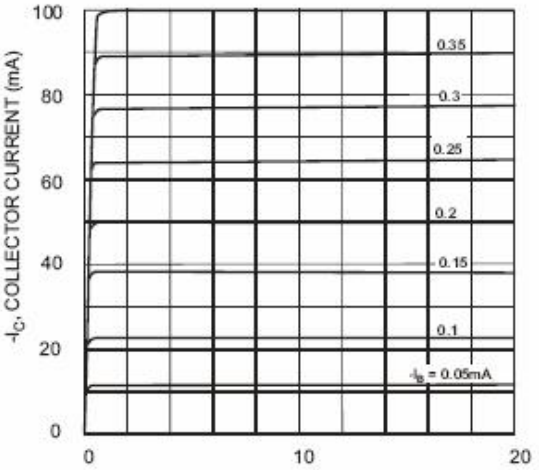
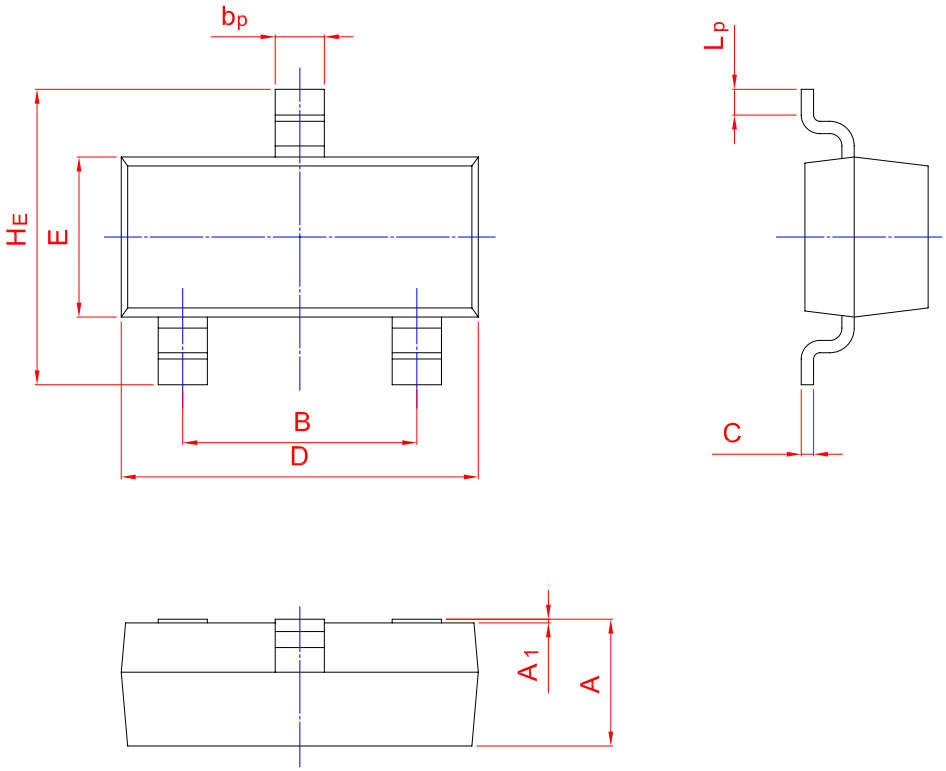


Fig. 6, Typical Emitter-Collector Characteristics

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20