



SOT-23 Plastic-Encapsulate Transistors

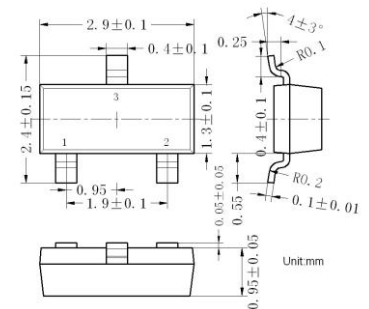
BC807 TRANSISTOR (PNP)

FEATURES:

- ☼ Ideally suited for automatic insertion
- ☼ Epitaxial planar die construction
- ☼ Complementary NPN type available (BC817)

MAXIMUM RATINGS(TA=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	℃



1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified):

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_C=-1\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	$HFE(1)$	$V_{CE}=-1V, I_C=-100mA$	100		600	
	$HFE(2)$	$V_{CE}=-1V, I_C=-500mA$	40			
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
Collector capacitance	C_{ob}	$V_{CB}=-10V, f=1MHz$		10		pF
Gain Bandwidth Product	fT	$V_{CE}=-5V, I_C=-10mA, f=100MHz$	100			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	BC807-16	BC807-25	BC807-40
Range	100-250	160-400	250-600
Marking	5A	5B	5C

Electrical Characteristic Curves

Fig. 1 P_C - T_a

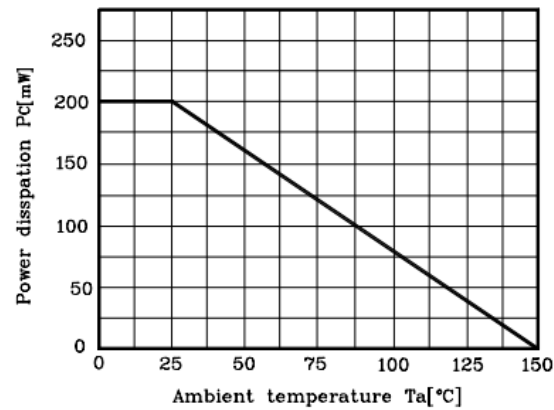


Fig. 2 I_C - V_{BE}

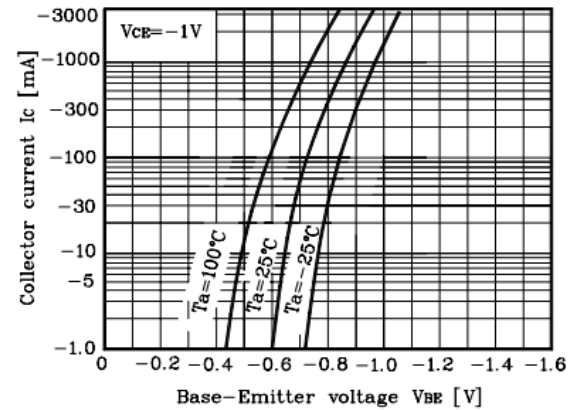


Fig. 3 I_C - V_{CE}

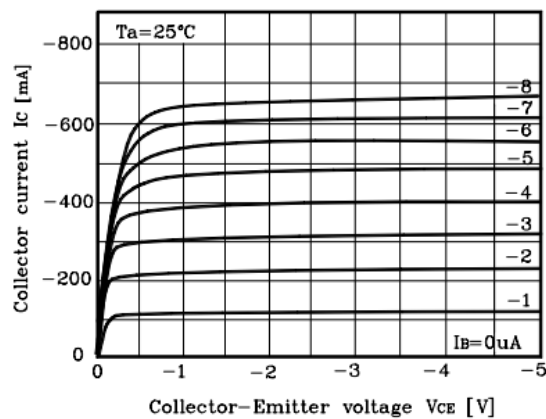


Fig. 4 h_{FE} - I_C

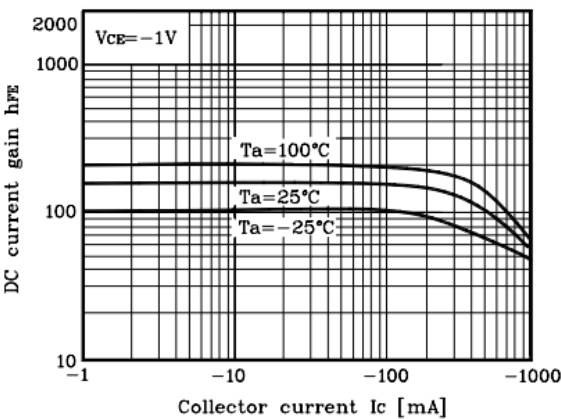


Fig. 5 $V_{CE(sat)}$ - I_C

