



**浩畅半导体**  
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**BC807** TRANSISTOR (PNP)

SOT-23 Plastic-Encapsulate Transistors

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			



**SOT-23 Plastic-Encapsulate Transistors**

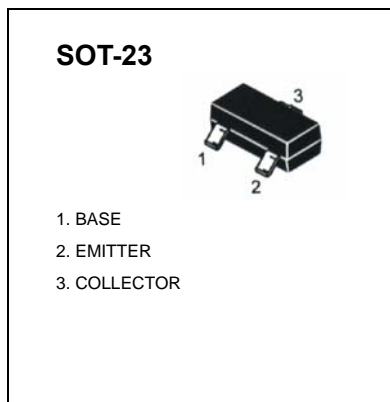
**BC807-16** TRANSISTOR (PNP)

**BC807-25**

**BC807-40**

**FEATURES**

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



**MARKING: 807-16:5A; 807-2 5:5B; 807- 40:5C**

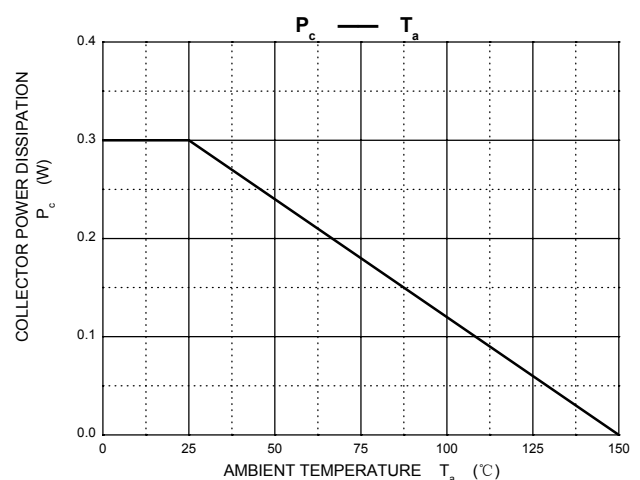
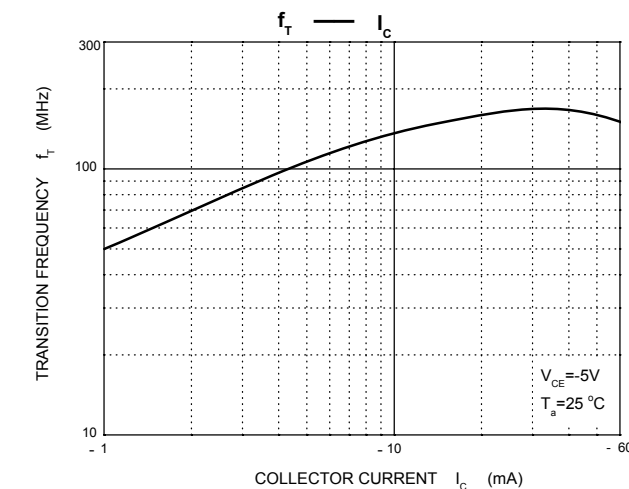
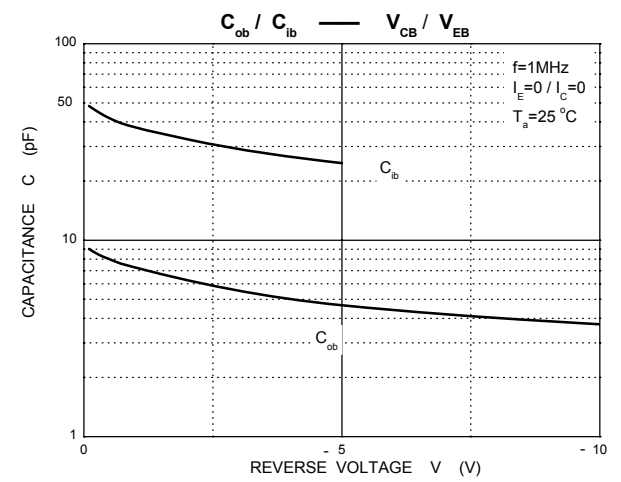
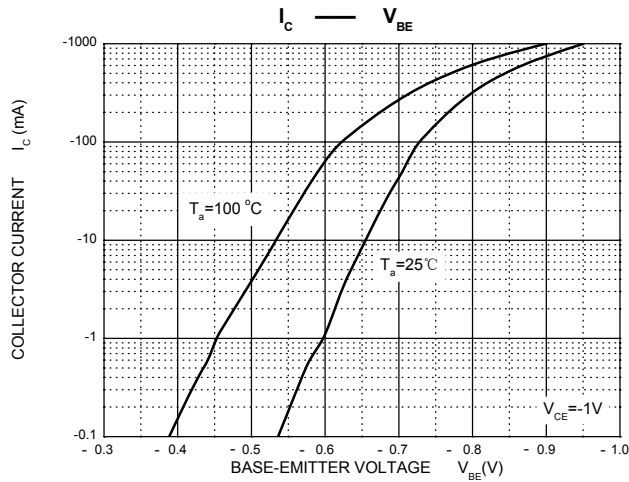
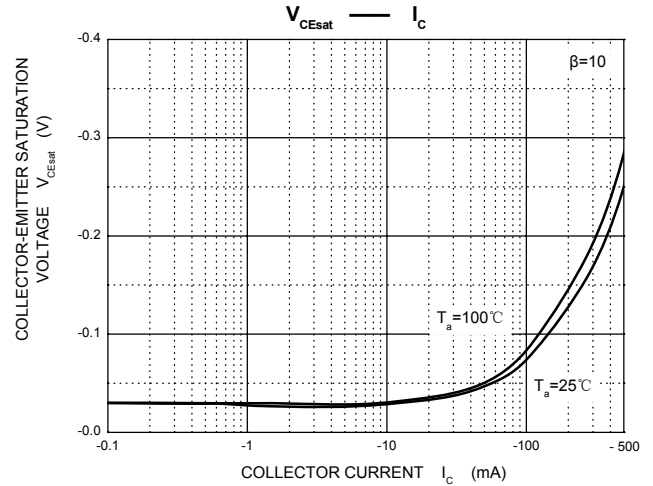
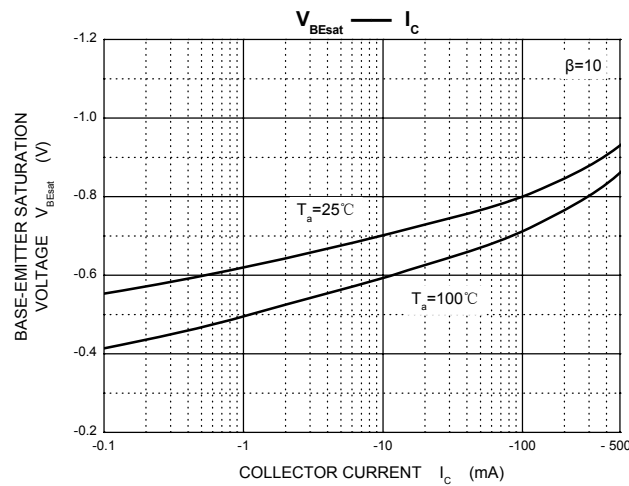
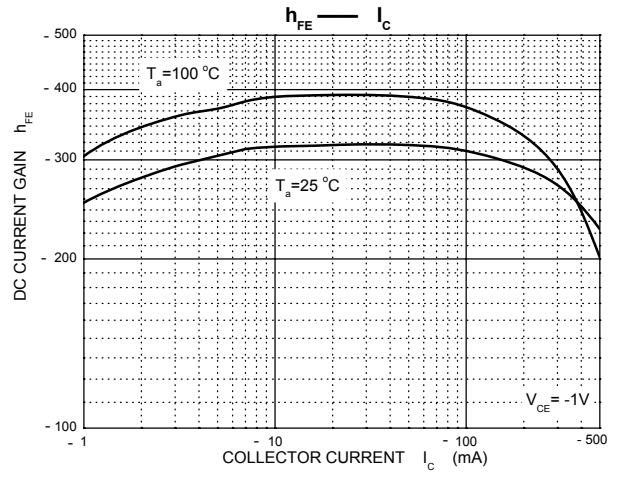
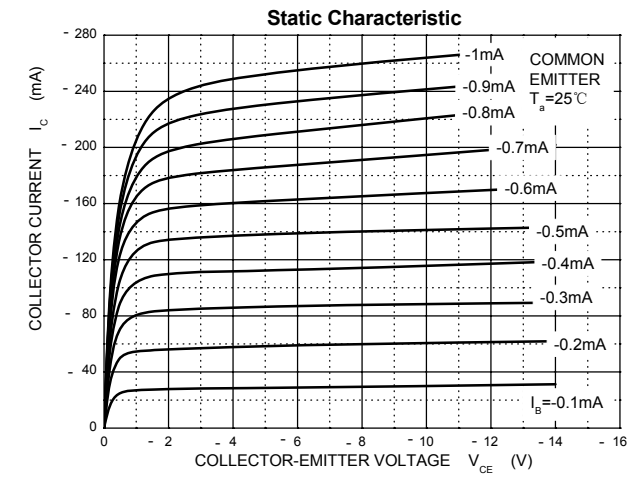
**MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)**

Symbol Para	meter	Value	Unit	s
V <sub>CBO</sub>	Collector-Base Voltage	-50	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	-45	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
I <sub>c</sub>	Collector Current -Continuous	-0.5	A	
P <sub>C</sub>	Collector Power Dissipation	0.3	W	
T <sub>j</sub>	Junction Temperature	150	°C	
T <sub>stg</sub>	Storage Temperature	-55-150	°C	

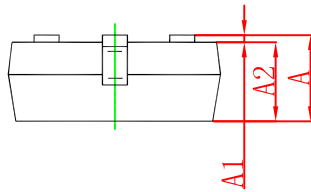
**ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> = -10 μ A, I <sub>E</sub> =0	-50		V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-45		V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = -1 μ A, I <sub>C</sub> =0	-5		V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -45V, I <sub>E</sub> =0		-0.1	μ A
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = -40V, I <sub>B</sub> =0		-0.2	μ A
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4 V, I <sub>C</sub> =0		-0.1	μ A
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -100mA	807-16	100	250
			807-25	160	400
			807-40	250	600
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-500mA, I <sub>B</sub> = -50mA		-0.7	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-1.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA f=100MHz	100		MHz

# Typical Characteristics

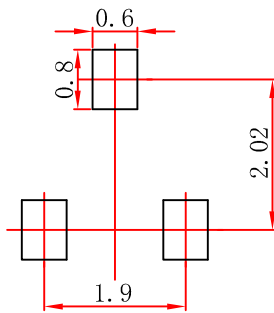


## SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

## SOT-23 Suggested Pad Layout



### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.