

# TRANSISTOR (PNP)

**BC807-16**

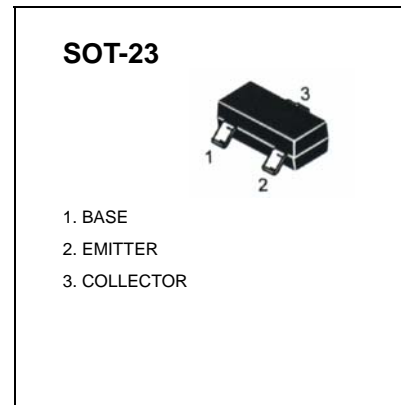
**BC807-25**

**BC807-40**

## FEATURES

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

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



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

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

# Typical Characteristics

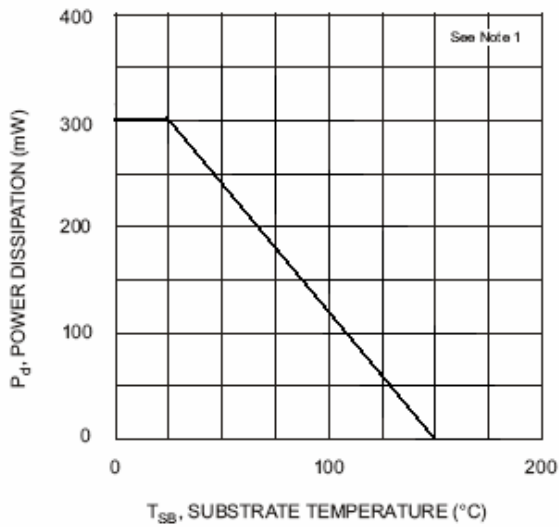


Fig. 1, Power Derating Curve

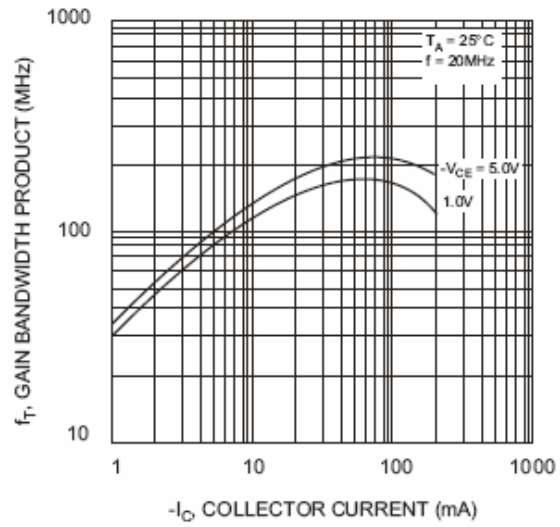


Fig. 2, Gain-Bandwidth Product vs Collector Current

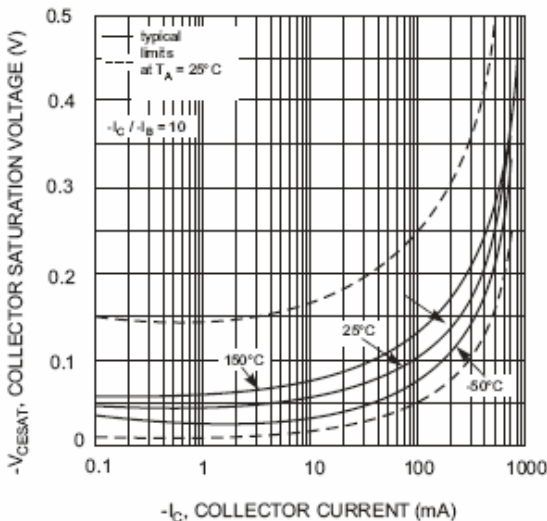


Fig. 3, Collector Sat Voltage vs Collector Current

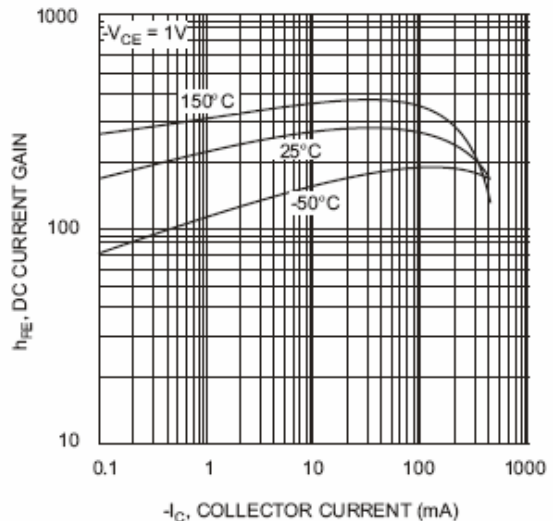


Fig. 4, DC Current Gain vs Collector Current

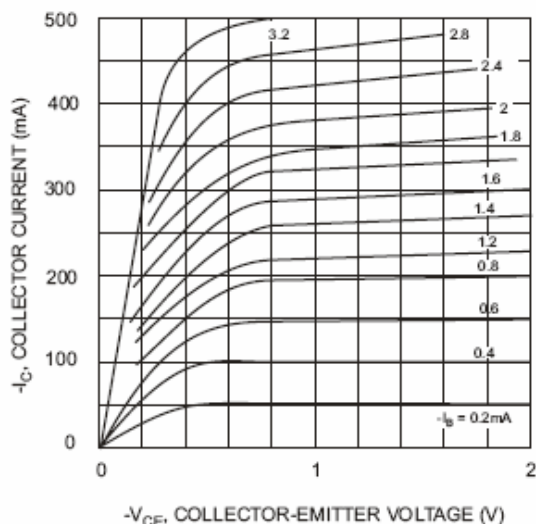


Fig. 5, Typical Emitter-Collector Characteristics

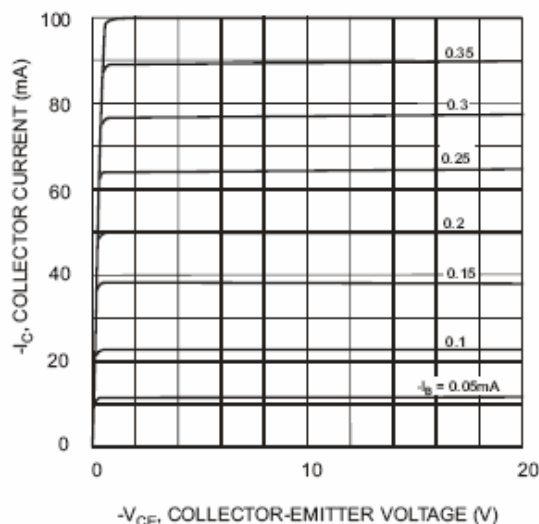


Fig. 6, Typical Emitter-Collector Characteristics