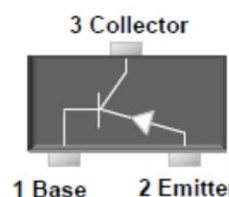


Small Signal Product
0.3 Watts, PNP Plastic-Encapsulate Transistor
FEATURES

- Ideally suited for automatic insertion
- Epitaxial planar die construction
- For switching, AF driver and amplifier applications
- Complementary NPN type available (BC817)


MECHANICAL DATA

- Case: SOT- 23, Molded plastic
- Terminal: Solderable per MIL-STD-202, method 208
- Case material: Molded plastic, UL flammability classification rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020C
- Lead free plating
- Weight: 0.008grams (approximately)

SOT-23
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	0.3	W
Collector Current - Continuous	I_C	-0.5	A
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150	$^{\circ}\text{C}$

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Breakdown Voltage $I_C = -10\ \mu\text{A}$ $I_E = 0$	V_{CBO}	-50	V
Collector-Emitter Breakdown Voltage $I_C = -10\ \text{mA}$ $I_B = 0$	V_{CEO}	-45	V
Emitter-Base Breakdown Voltage $I_E = -1\ \mu\text{A}$ $I_C = 0$	V_{EBO}	-5	V
Collector Cut-off Current $V_{CB} = -45\ \text{V}$ $I_E = 0$ $V_{CB} = -40\ \text{V}$ $I_B = 0$	I_{CBO}	-0.1	μA
		-0.2	μA
Emitter Cut-off Current $V_{EB} = -4\ \text{V}$ $I_C = 0$	I_{EBO}	-0.1	μA
Collector-Emitter Saturation Voltage at $I_C = -500\text{mA}$ $I_B = 50\ \text{mA}$	$V_{CE(sat)}$	-0.7	V
Base-Emitter Saturation Voltage at $I_C = -500\ \text{mA}$ $I_B = 50\ \text{mA}$	$V_{BE(sat)}$	-1.2	V
Transition Frequency $V_{CE} = -5\ \text{V}$ $I_C = -10\ \text{mA}$ $f = 50\text{MHz}$	f_T	80	MHz
DC Current Gain	$h_{FE(1)}$	100	250
		160	400
		250	600

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Power Derating Curve

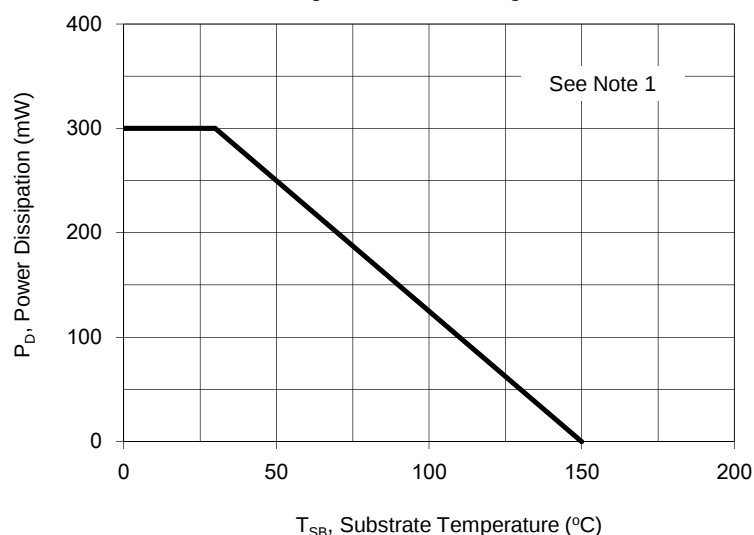


Fig. 2 Gain Bandwidth Product VS. Collector Current

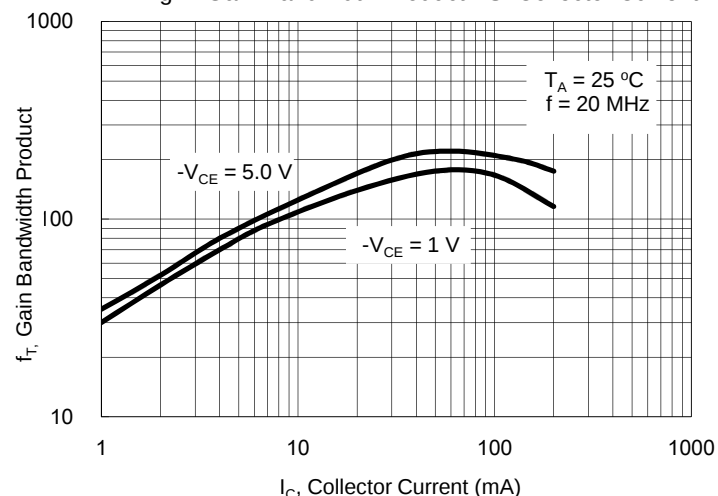


Fig.3 Collector Sat Voltage VS. Collector Current

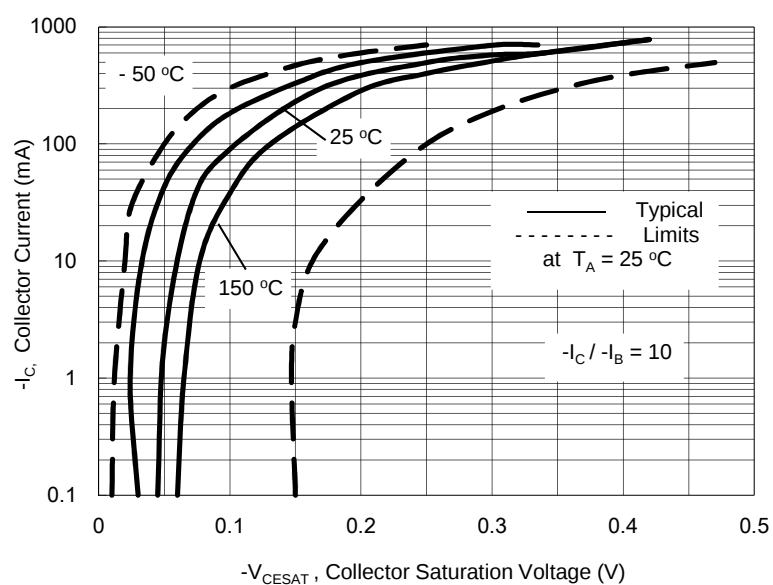


Fig. 4 DC Current Gain VS. Collector Current

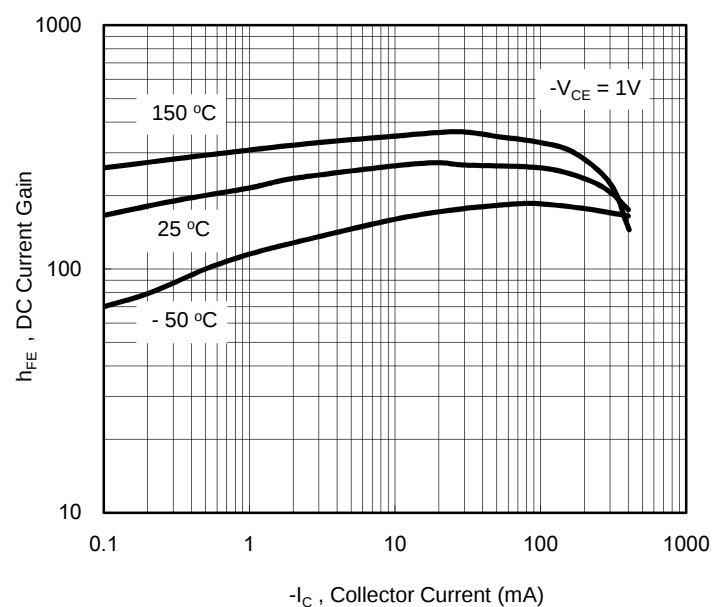


Fig.5 Typical Emitter-Collector Characteristics

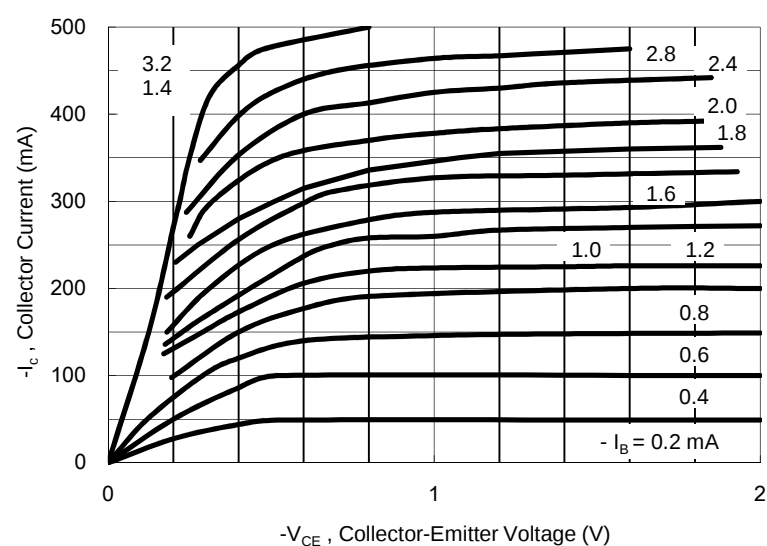
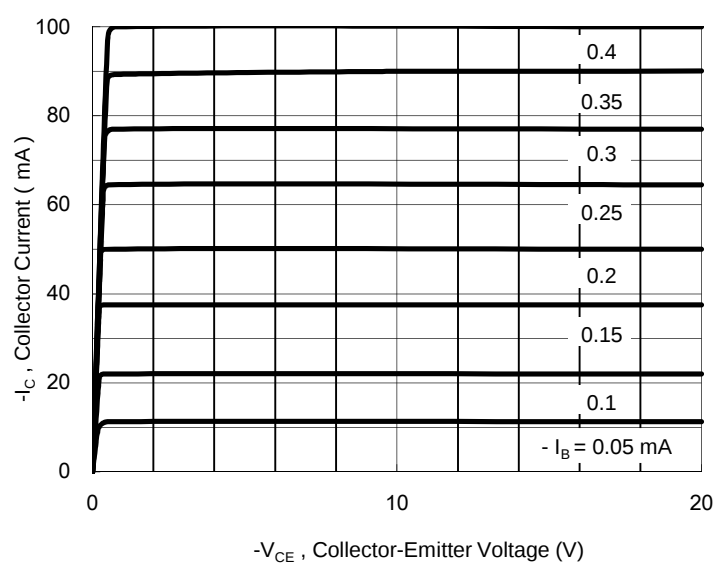


Fig. 6 Typical Emitter-Collector Characteristics



Small Signal Product

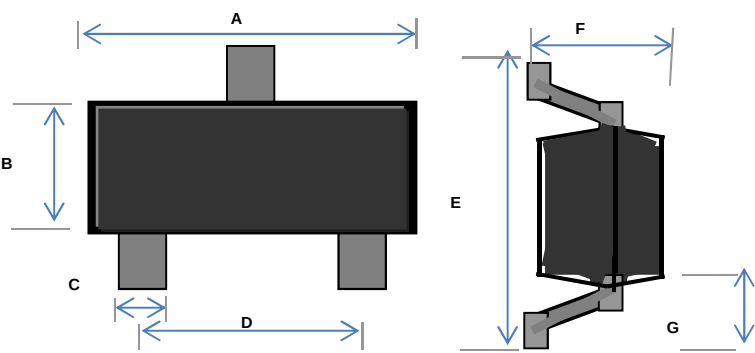
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	MARKING
BC807-16	(Note)	RF	G	SOT-23	3K / 7" Reel	5A
BC807-25		RF	G	SOT-23	3K / 7" Reel	5B
BC807-40		RF	G	SOT-23	3K / 7" Reel	5C

Note: Manufacture special control, if empty means no special control requirement.

EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BC807-16 RFG	BC807-16W		RF	G	Green compound
BC807-16-B0 RFG	BC807-16W	B0	RF	G	Green compound
BC807-16-D0 RFG	BC807-16W	D0	RF	G	Green compound

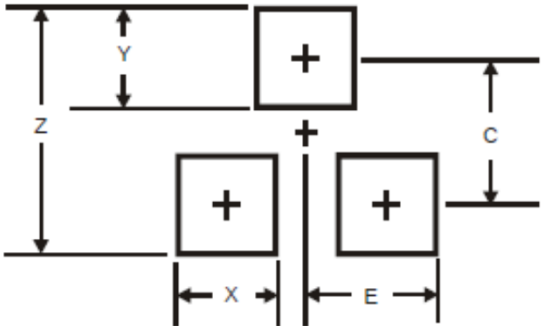
Small Signal Product

DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	0.95	0.037
B	2.0	0.079
C	0.9	0.035
D	0.8	0.031

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