

**SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(PNP)**

FEATURES

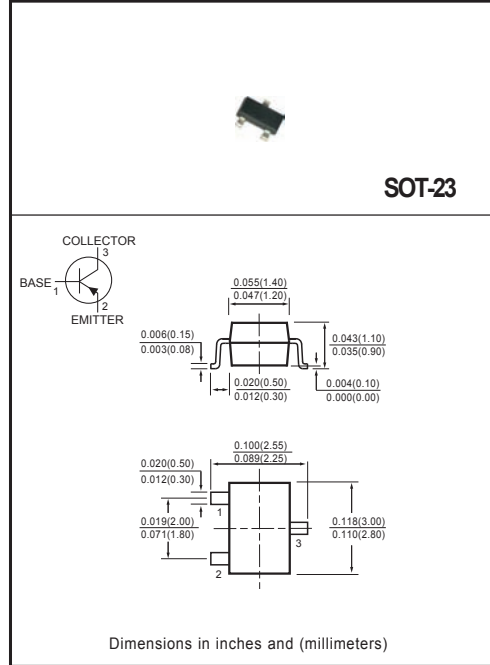
- * Ideally suited for automatic insertion
- * Epitaxial planar die construction
- * Complementary NPN type available(BC817)

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.008 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	VALUE	UNITS
Collector-base voltage	V _{CB0}	-50	V
Collector-emitter voltage	V _{CE0}	-45	V
Emitter-base voltage	V _{EB0}	-5	V
Collector current-continuous	I _C	-0.5	A
Collector dissipation	P _C	0.3	W
Junction and storage temperature	T _J ,T _{stg}	-55 -150	°C

ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN	MAX	UNITS
Collector-base breakdown voltage (I _C = -10μA, I _E =0)	V _{CB0}	-50	-	V
Collector-emitter breakdown voltage (I _C = -10mA, I _B =0)	V _{CE0}	-45	-	V
Emitter-base breakdown voltage (I _E = -1μA, I _C =0)	V _{EB0}	-5	-	V
Collector cut-off current (V _{CB} = -45V, I _E =0)	I _{CBO}	-	-0.1	μA
Collector cut-off current (V _{CE} = -40V, I _B =0)	I _{CEO}	-	-0.2	μA
Emitter cut-off current (V _{EB} = -4V, I _C =0)	I _{EBO}	-	-0.1	μA
DC current gain (V _{CE} = -1V, I _C = -100mA)	h _{FE(1)}	100	250	-
Collector-emitter saturation voltage (I _C = -500mA, I _B = -50mA)	V _{CE(sat)}	-	-0.7	V
Base-emitter saturation voltage (I _C = -500mA, I _B = -50mA)	V _{BE(sat)}	-	-1.2	V
Transition frequency (V _{CE} = -5V, I _C = -10mA, f= 100MHz)	f _T	100	-	MHz

MARKING	5A
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RATING AND CHARACTERISTICS CURVES (BC807-16)

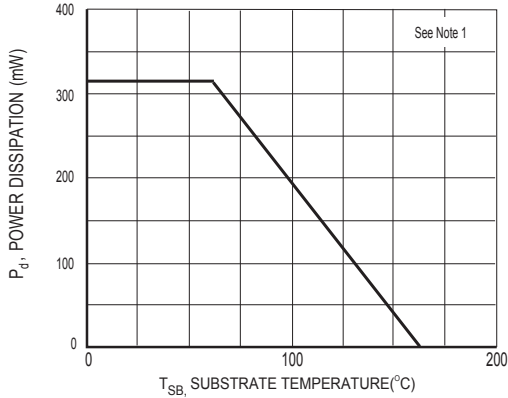


Figure.1 Power Derating Curve

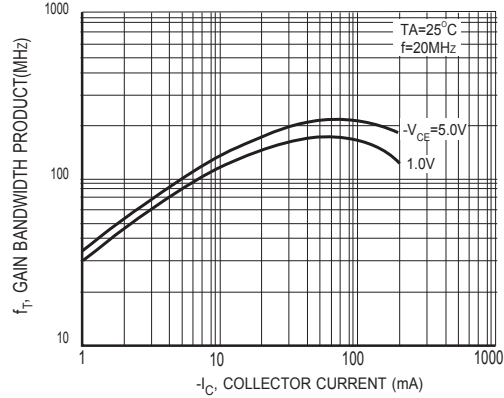


Figure.2 GAIN-BANDWIDTH PRODUCT vs COLLECTOR CURRENT

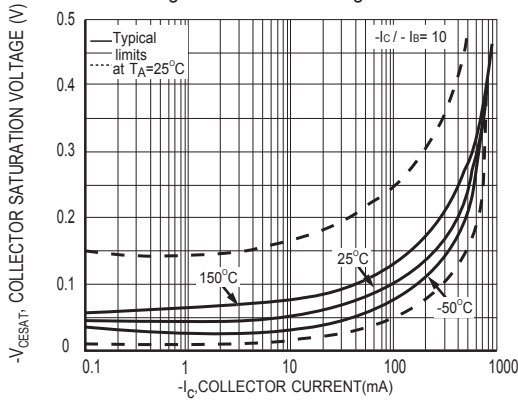


Figure.3 Collector Sat Voltage vs Collector Current

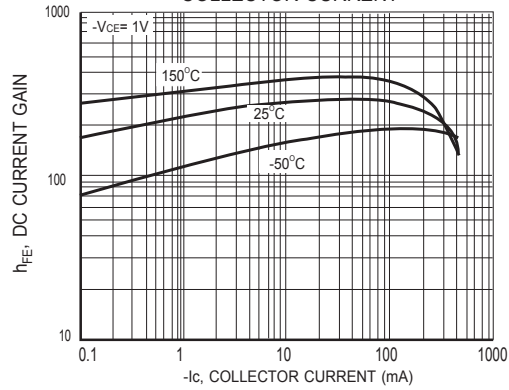


Figure.4 DC Current Gain vs Collector Current

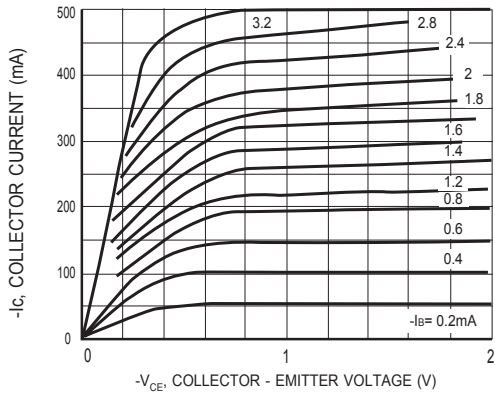


Figure.5 Typical Emitter-Collector Characteristics

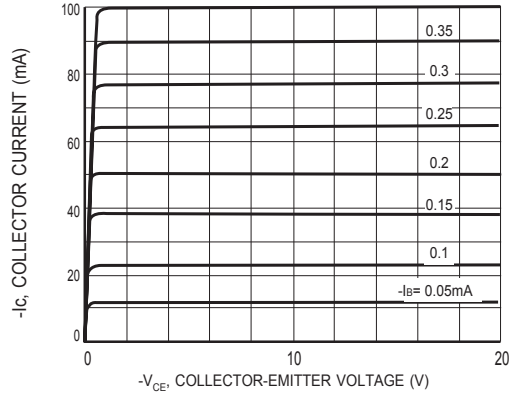


Figure.6 Typical Emitter-Collector Characteristics

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