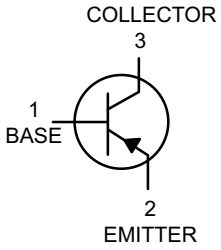
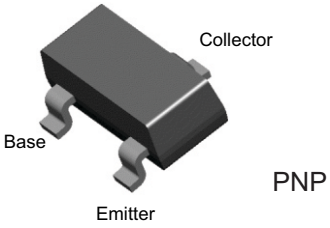
GENERAL PURPOSE TRANSISTORS
BC808 (25, 40) PNP
SOT-23

RoHS

FEATURES

- S Prefix for automotive and other applications requiring unique site and control change
- AEC-Q101 Qualified and PPAP Capable

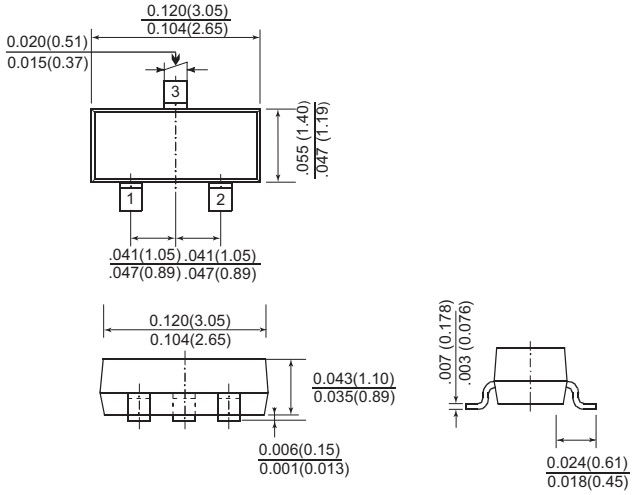




PNP

MAXIMUM RATINGS
(T_A=25°C unless otherwise noted)

Parameter		Symbol	Value	Unit
Collector - Base Voltage		V_{CBO}	-30	V
Collector - Emitter Voltage		V_{CEO}	-25	V
Emitter - Base Voltage		V_{EBO}	-5	V
Collector Current - Continuous		I_C	-500	mAdc
Total Device Dissipation	FR-5 Board (Note 1) TA = 25°C Derate Above 25°C	P_D	225 1.8	mW mW / °C
	Alumina Substrate (Note 2) TA = 25°C Derate Above 25°C		300 2.4	
Thermal Resistance, Junction-to-Ambient	FR-5 Board	R_{OJA}	556	°C / W
	Alumina Substrate		417	
Junction Temperature Range		T_J	-55 to +150	°C
Storage Temperature Range		T_{STG}	-55 to +150	°C



SOT-23
Dimensions in inches and (millimeters)

Note 1: FR-5 = 1.0 x 0.75 x 0.062”
Note 2: Alumina = 0.4 x 0.3 x 0.024 in 99.5% alumina

ELECTRICAL CHARACTERISTICS
(T_A=25°C unless otherwise specified)

	Parameter		Symbol	Test Conditions	Min	TYP	Max	Unit
OFF	Collector Cut - Off Current		I_{CBO}	V_{CB} = -20V V_{CB} = -20V, T_J = 150℃	--	--	-100 -5.0	nA µA
OFF	Emitter - Base Breakdown Voltage		$V_{(BR)EBO}$	I_E = -1.0 µA	-5.0	--	--	V
OFF	Collector - Emitter Breakdown Voltage		$V_{(BR)CES}$	V_{EB} = 0, I_C = 10 µa	-30	--	--	V
OFF	Collector - Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C = -10 mA	-25	--	--	V
ON	DC Current Gain	BC808-25	h_{FE}	I_C = -100 mA, V_{CE} = -1.0 V	160	--	400	--
ON		BC808-40			250		600	
ON		--		I_C = -500 mA, V_{CE} = -1.0 V	40		--	
ON	Collector - Emitter Saturation Voltage		$V_{CE\ (sat)}$	I_C = -500 mA, I_B = -50 mA	--	--	-0.7	V
ON	Base - Emitter Saturation Voltage		$V_{BE\ (on)}$	I_C = -500 mA, I_B = -1.0 V	--	--	-1.2	V
	Current - Gain - Bandwidth Product		f_T	I_C = -10 mA V_{CE} = -5.0 Vdc f = 100MHz	100	--	--	MHz
	Output Capacitance		C_{obo}	V_{CB} = -10 V f = 1.0 MHz	--	10	-0.7	pF

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BC808-25 TYPICAL CHARACTERISTIC CURVES

Figure 1. DC Current Gain vs. Collector Current

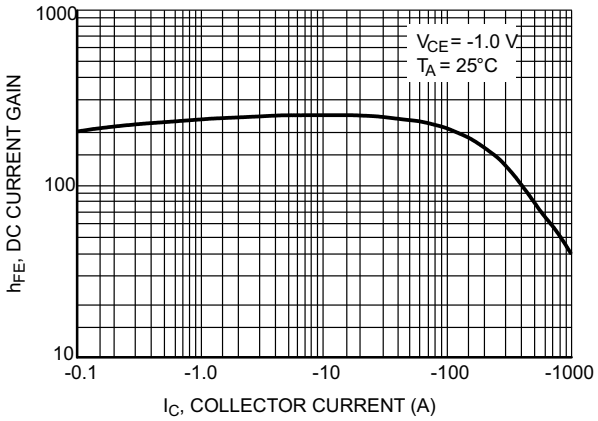


Figure 2. "ON" Voltages

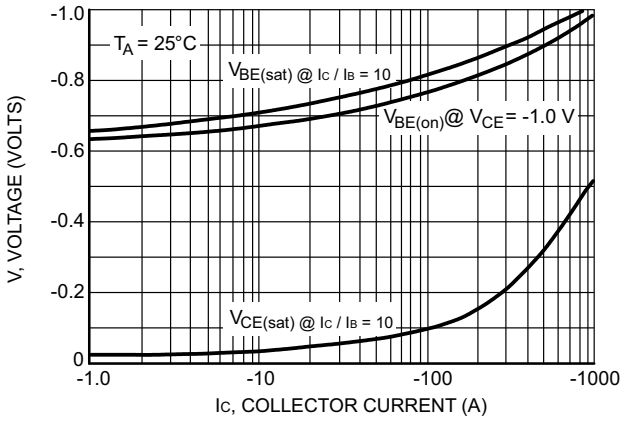


Figure 3. Saturation Region

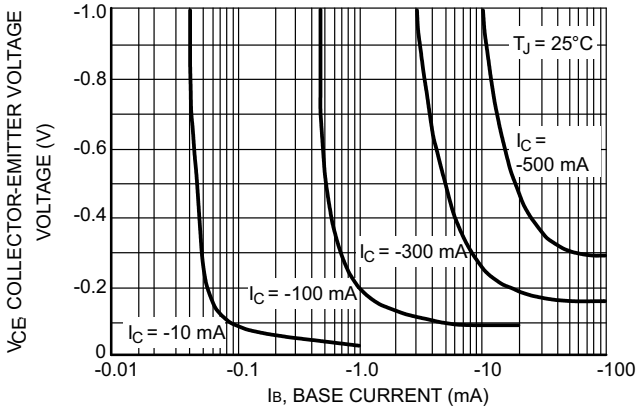


Figure 4. Temperature Coefficients

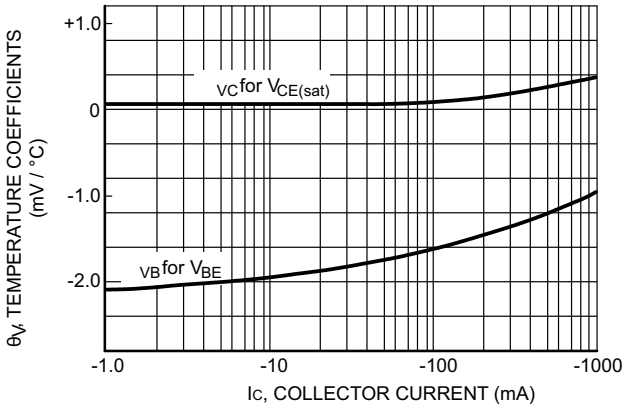
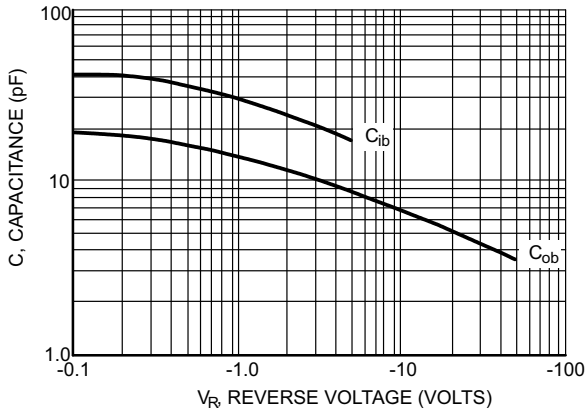


Figure 5. Capacitances



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