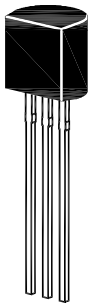
BC307…BC308

PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications



1. Collector 2. Base 3. Emitter
TO-92 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	BC307	BC308	Unit
Collector Base Voltage	$-V_{CBO}$	50	30	V
Collector Emitter Voltage	$-V_{CEO}$	45	25	V
Emitter Base Voltage	$-V_{EBO}$	5		V
Collector Current	$-I_C$	100		mA
Total Power Dissipation	P_{tot}	500		mW
Junction Temperature	T_j	150		°C
Storage Temperature Range	T_S	- 55 to + 150		°C

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 5 V, $-I_C$ = 2 mA	Current Gain Group A B C	h_{FE} h_{FE} h_{FE}	120 180 380	220 460 800	- - -
Collector Base Cutoff Current at $-V_{CB}$ = 50 V at $-V_{CB}$ = 30 V	BC307 BC308	$-I_{CBO}$	- -	15 15	nA
Collector Emitter Breakdown Voltage at $-I_C$ = 2 mA	BC307 BC308	$-V_{(BR)CEO}$	45 25	- -	V
Emitter Base Breakdown Voltage at $-I_E$ = 100 µA		$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 10 mA, $-I_B$ = 0.5 mA at $-I_C$ = 100 mA, $-I_B$ = 5 mA		$-V_{CE(sat)}$	- -	0.3 0.6	V
Base Emitter On Voltage at $-V_{CE}$ = 5 V, $-I_C$ = 2 mA		$-V_{BE(on)}$	0.55	0.7	V
Current Gain Bandwidth Product at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA, f = 100 MHz		f_T	100	-	MHz
Collector Base Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz		C_{cb}	-	6	pF

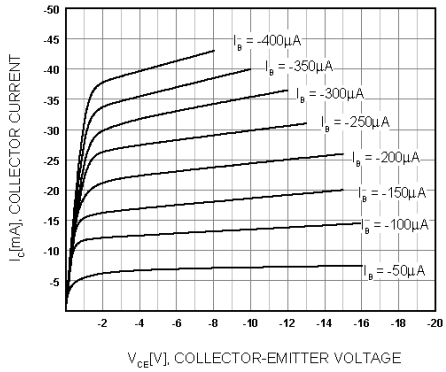


Figure 1. Static Characteristic

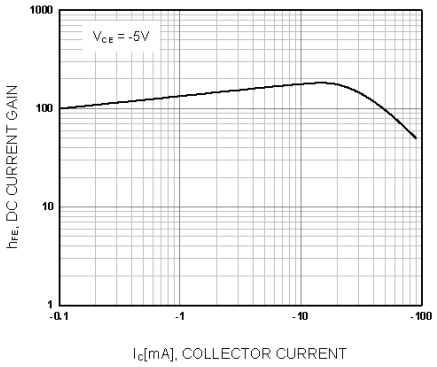


Figure 2. DC current Gain

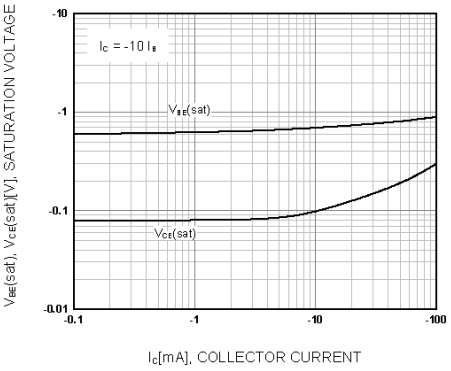


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

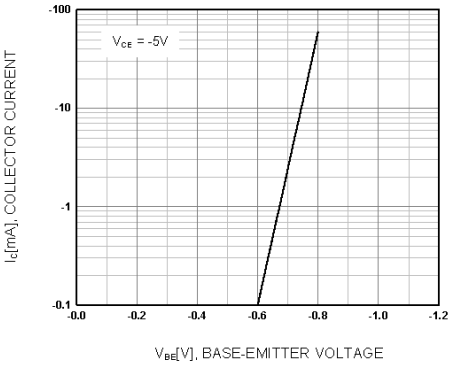


Figure 4. Base-Emitter Capacitance

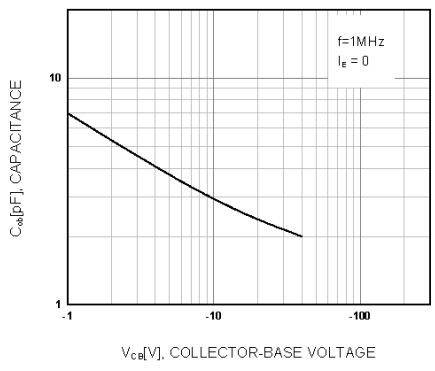


Figure 5. Collector Output Capacitance

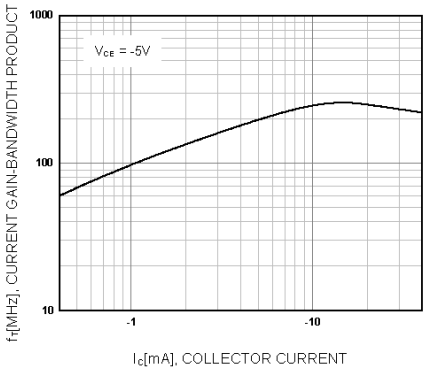


Figure 6. Current Gain Bandwidth Product