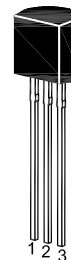


BC307...BC308

PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications



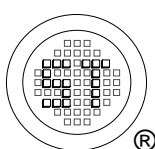
1. Collector 2. Base 3. Emitter
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

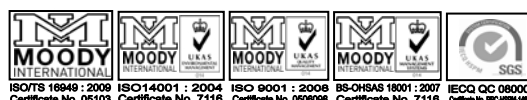
Parameter	Symbol	BC307	BC308	Unit
Collector Base Voltage	$-V_{CB0}$	50	30	V
Collector Emitter Voltage	$-V_{CEO}$	45	25	V
Emitter Base Voltage	$-V_{EBO}$	5		V
Collector Current	$-I_C$	100		mA
Total Power Dissipation	P_{tot}	500		mW
Junction Temperature	T_j	150		$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150		$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ Current Gain Group	A	h_{FE}	120	220	-
	B	h_{FE}	180	460	-
	C	h_{FE}	380	800	-
Collector Base Cutoff Current at $-V_{CB} = 50\text{ V}$ at $-V_{CB} = 30\text{ V}$	BC307	$-I_{CB0}$	-	15	nA
	BC308		-	15	
Collector Emitter Breakdown Voltage at $-I_C = 2\text{ mA}$	BC307	$-V_{(BR)CEO}$	45	-	V
	BC308		25	-	
Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	V	
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$ at $-I_C = 100\text{ mA}$, $-I_B = 5\text{ mA}$	$-V_{CE(sat)}$	-	0.3	V	
		-	0.6		
Base Emitter On Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	$-V_{BE(on)}$	0.55	0.7	V	
Current Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 100\text{ MHz}$	f_T	100	-	MHz	
Collector Base Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{cb}	-	6	pF	



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited



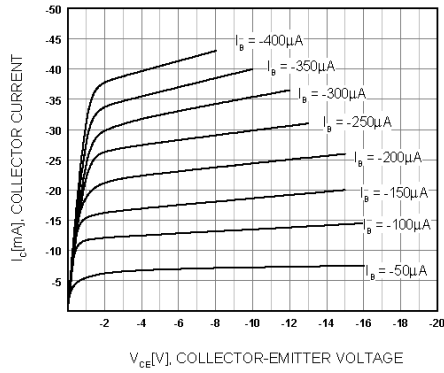


Figure 1. Static Characteristic

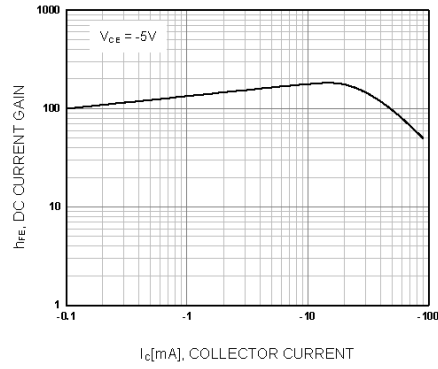


Figure 2. DC current Gain

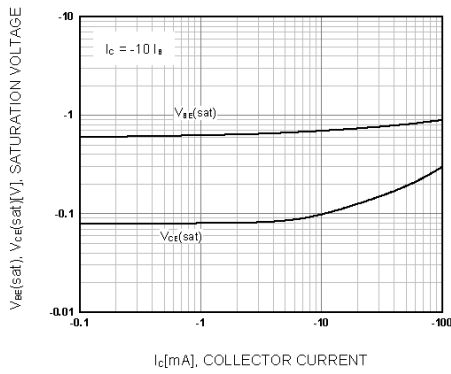


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

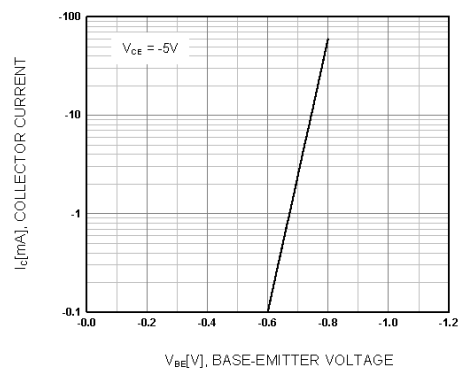


Figure 4. Base-Emitter Capacitance

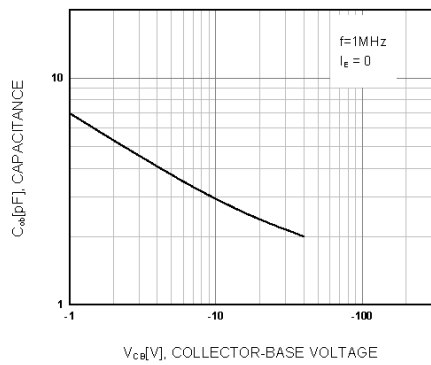


Figure 5. Collector Output Capacitance

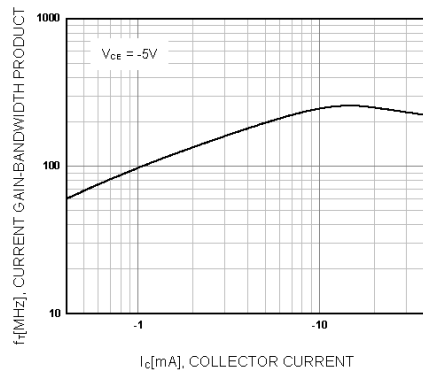
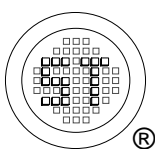


Figure 6. Current Gain Bandwidth Product



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited

