BC556...BC560

PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications

These transistors are subdivided into three groups A, B and C according to their current gain.



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit	
Collector Base Voltage	BC556 BC557, BC560 BC558, BC559	-V _{CBO}	80 50 30	V	
Collector Emitter Voltage	BC556 BC557, BC560 BC558, BC559	-V _{CEO}	65 45 30	V	
Emitter Base Voltage		-V _{EBO}	5	V	
Collector Current (DC)		-I _C	100	mA	
Peak Collector Current		-I _{CM}	200	mA	
Total Power Dissipation		P _{tot}	500	mW	
Junction Temperature		Tj	150	°C	
Storage Temperature Range		Τ _S	- 65 to + 150	°C	

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5 \text{ V}, -I_{C} = 2 \text{ mA}$ Cur	rrent Gain Group A B C	h _{FE} h _{FE} h _{FE}	110 200 420	220 450 800	- - -
Collector Base Cutoff Current at $-V_{CB} = 30 \text{ V}$		-I _{CBO}	-	15	nA
Emitter Base Cutoff Current at -V _{EB} = 5 V		-I _{EBO}	-	100	nA
Collector Base Breakdown Voltage at -I _C = 100 µA	BC556 BC557, BC560 BC558, BC559	-V _{(BR)CBO}	80 50 30		V
Collector Emitter Breakdown Voltage at -I _C = 2 mA	BC556 BC557, BC560 BC558, BC559	-V _{(BR)CEO}	65 45 30	- - -	V
Emitter Base Breakdown Voltage at -I _E = 100 μA		-V _{(BR)EBO}	5	-	V



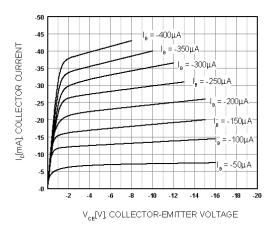
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Dated : 27/12/2007

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
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 0.65	V
Base Emitter On Voltage at $-V_{CE} = 5 \text{ V}$, $-I_C = 2 \text{ mA}$ at $-V_{CE} = 5 \text{ V}$, $-I_C = 10 \text{ mA}$	-V _{BE(on)}	0.55 -	0.75 0.82	V
Transition Frequency at $-V_{CE} = 5 \text{ V}$, $-I_C = 10 \text{ mA}$, f = 100 MHz	f⊤	100	-	MHz
Collector Base Capacitance at -V _{CB} = 10 V, f = 1 MHz	C _{cb}	-	6	pF





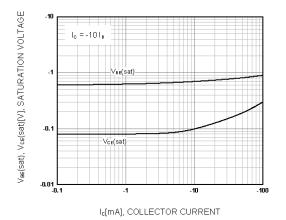
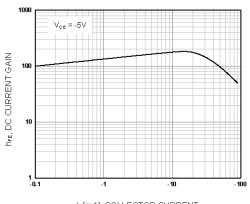
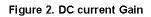


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage



Ic[mA], COLLECTOR CURRENT



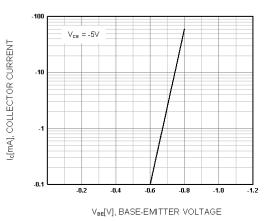


Figure 4. Base-Emitter On Voltage



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