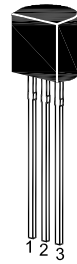


Features

- Silicon epitaxial planar transistors
- For switching and amplifier applications



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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	RND BC556 (A,B,C)	80
		RND BC557 (A,C), RND BC560 (C)	50
Collector Emitter Voltage	V_{CEO}	RND BC556 (A,B,C)	65
		RND BC557 (A,C), RND BC560 (C)	45
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	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	RND BC556A, RND BC557A	h_{FE}	110	220	-
	RND BC556B	h_{FE}	200	450	-
	RND BC556C, RND BC557C, RND BC560C	h_{FE}	420	800	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	15	nA	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	100	nA	
Collector Base Breakdown Voltage at $I_C = 100\ \mu\text{A}$	$V_{(BR)CBO}$	RND BC556 (A,B,C)	80	-	V
		RND BC557 (A,C), RND BC560 (C)	50	-	
Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$	$V_{(BR)CEO}$	RND BC556 (A,B,C)	65	-	V
		RND BC557 (A,C), RND BC560 (C)	45	-	
Emitter Base Breakdown Voltage at $I_E = 100\ \mu\text{A}$	$V_{(BR)EBO}$	5	-	V	

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

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 $V_{CE} = 5\text{ V}$, $I_C = 10\text{ mA}$, $f = 100\text{ MHz}$	f_T	100	-	MHz
Collector Base Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{cbo}	-	6	pF

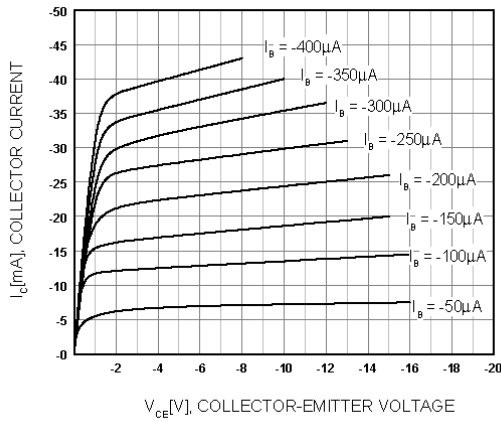


Figure 1. Static Characteristic

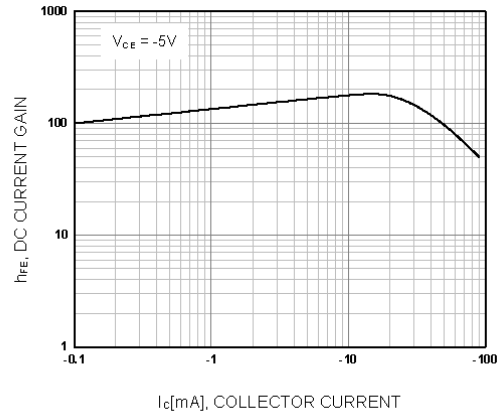


Figure 2. DC current Gain

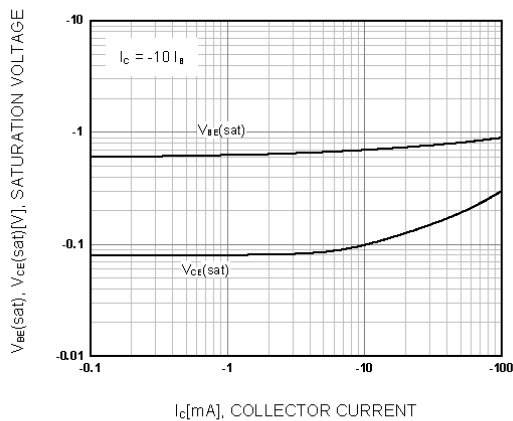


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

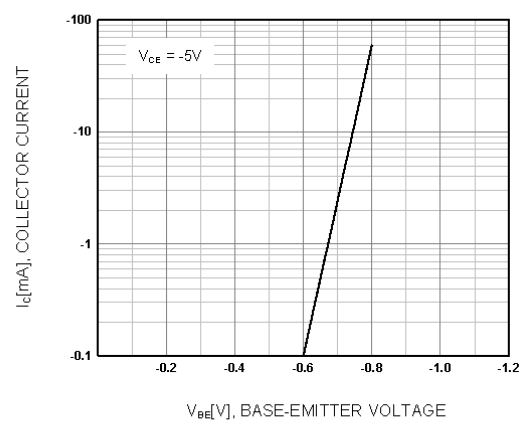


Figure 4. Base-Emitter On Voltage