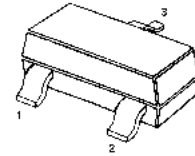


Features

- Silicon epitaxial planar transistors
- For switching and amplifier applications



1. Base 2. Emitter 3. Collector
TO-236 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	80 50	V
Collector Emitter Voltage	$-V_{CEO}$	65 45	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	200	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

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

	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ RND BC856A RND BC857B RND BC857C, RND BC860C	h_{FE}	125 220 420	250 475 800	- - -
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	I_{CBO}	-	15	nA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ RND BC856A RND BC857 (B,C), RND BC860C	$V_{(BR)CBO}$	80 50	- -	V V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ RND BC856A RND BC857 (B,C), RND BC860C	$V_{(BR)CES}$	80 50	- -	V V
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$ RND BC856A RND BC857 (B,C), RND BC860C	$V_{(BR)CEO}$	65 45	- -	V V
Emitter Base Breakdown Voltage at $-I_E = 1\text{ }\mu\text{A}$	$V_{(BR)EBO}$	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 0.65	V V
Base Emitter On Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	$V_{BE(on)}$	0.6 -	0.75 0.82	V 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 Output Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	6	pF

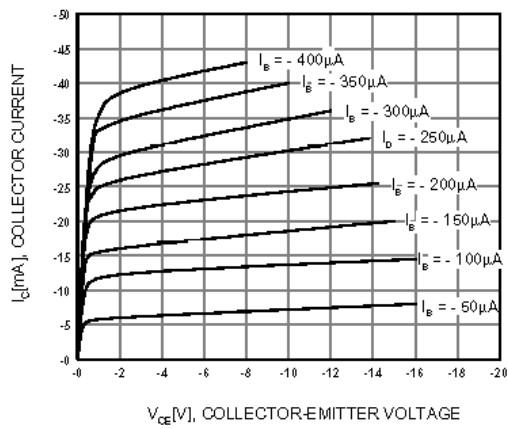


Figure 1. Static Characteristic

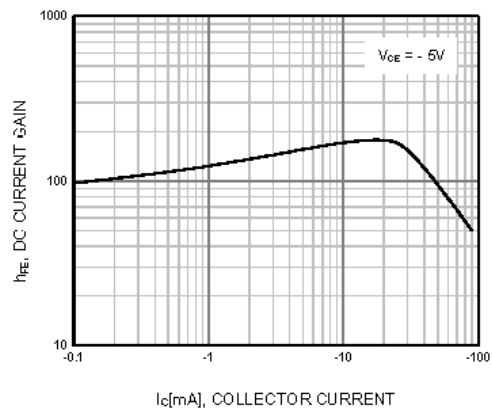


Figure 2. DC current Gain

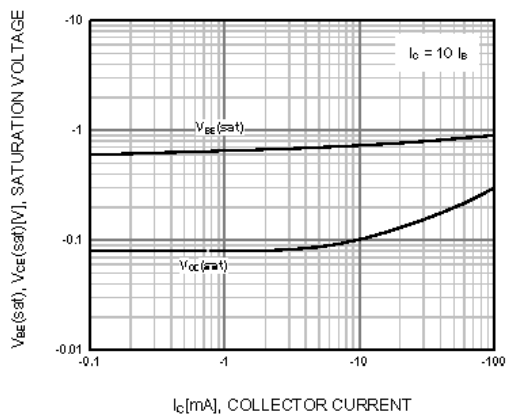


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

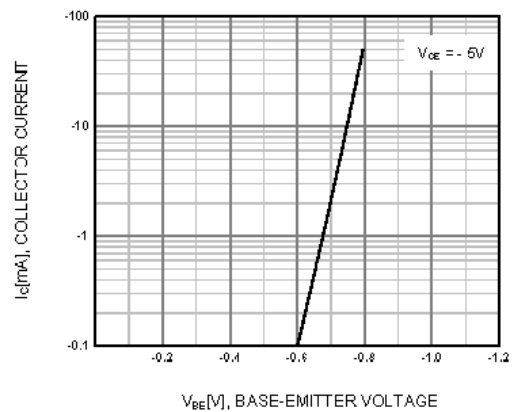


Figure 4. Base-Emitter On Voltage

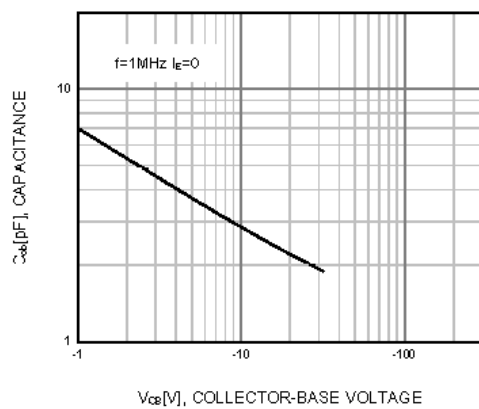


Figure 5. Collector Output Capacitance

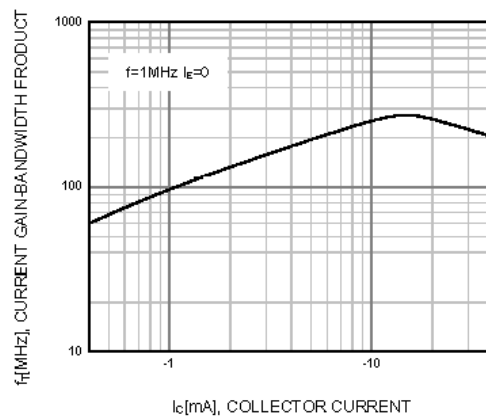


Figure 6. Current Gain Bandwidth Product