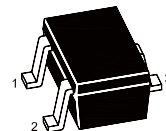


BC856W...BC860W

PNP Silicon Epitaxial Planar Transistor

for general purpose and switching applications



1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	80	V
BC856W		50	
BC857W		30	
BC858W		30	
BC860W		50	
Collector Emitter Voltage	$-V_{CEO}$	65	V
BC856W		45	
BC857W		30	
BC858W		30	
BC860W		45	
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Peak Collector Current	$-I_{CM}$	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

BC856W...BC860W**Characteristics at $T_a = 25\text{ }^\circ\text{C}$**

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	BC856AW~BC860AW BC856BW~BC860BW BC856CW~BC860CW	h_{FE} h_{FE} h_{FE}	125 220 420	250 475 800	- - -
Collector Base Voltage at $-I_C = 10\text{ }\mu\text{A}$	BC856W BC857W BC858W BC859W BC860W	$-V_{CBO}$	80 50 30 30 50	- - - - -	V
Collector Emitter Voltage at $-I_C = 10\text{ mA}$	BC856W BC857W BC858W BC859W BC860W	$-V_{CEO}$	65 45 30 30 45	- - - - -	V
Emitter Base Voltage at $-I_E = 1\text{ }\mu\text{A}$		$-V_{EBO}$	5	-	V
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 Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 0.5\text{ mA}$ $-I_C = 100\text{ mA}$, $-I_B = 5\text{ mA}$		$-V_{CE(sat)}$	- -	0.3 0.65	V
Base Emitter Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$		$-V_{BE}$	0.6 -	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
Output Capacitance at $-V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		C_{ob}	-	4.5	pF

BC856W...BC860W

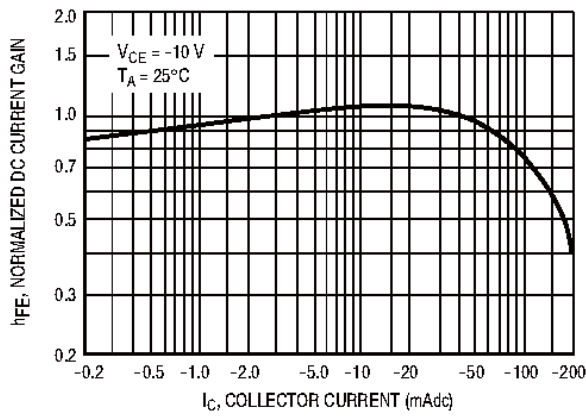


Figure 1. Normalized DC Current Gain

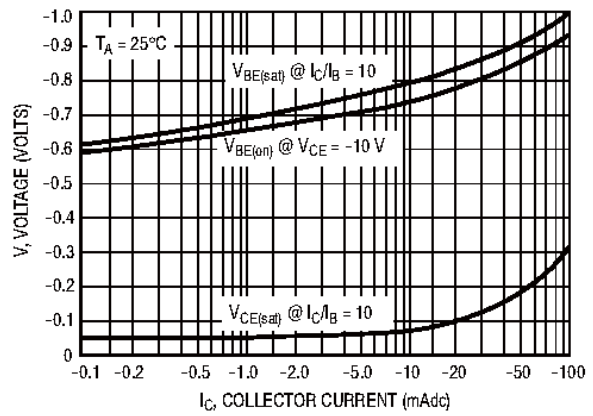


Figure 2. "Saturation" and "On" Voltages

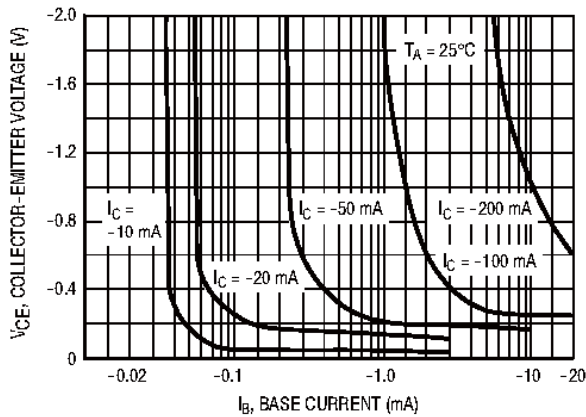


Figure 3. Collector Saturation Region

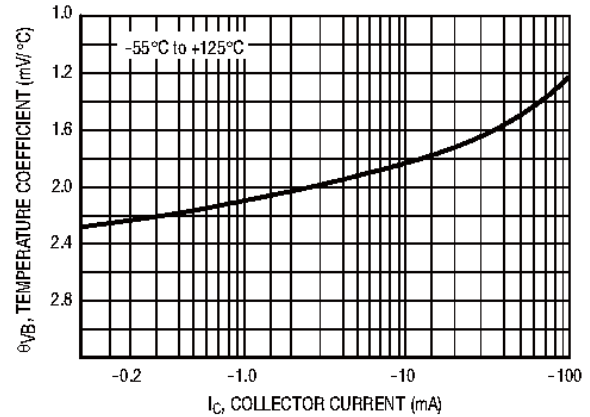


Figure 4. Base-Emitter Temperature Coefficient

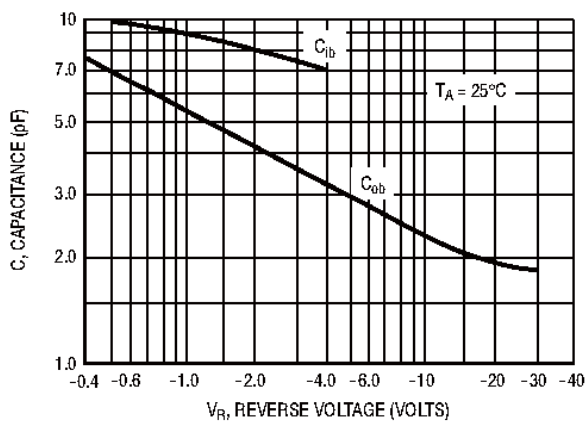


Figure 5. Capacitances

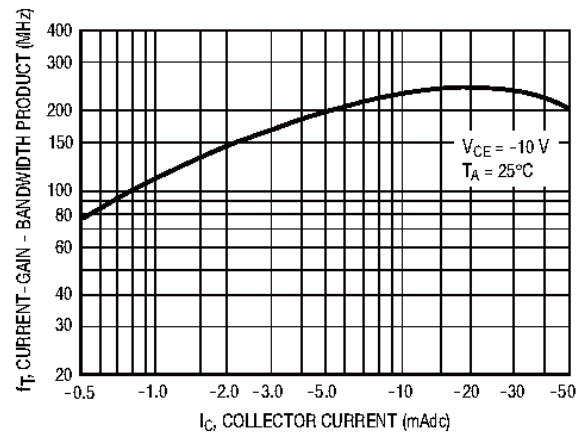


Figure 6. Current-Gain - Bandwidth Product

BC856W...BC860W

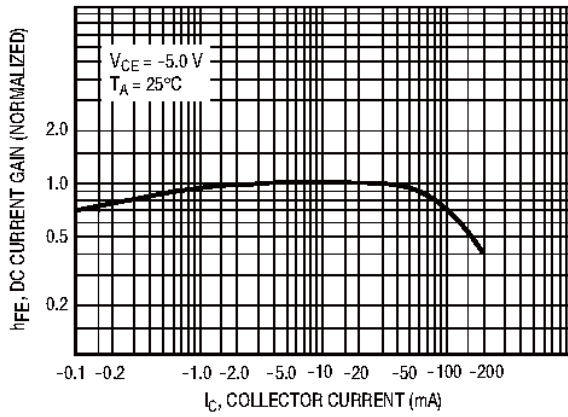


Figure 7. DC Current Gain

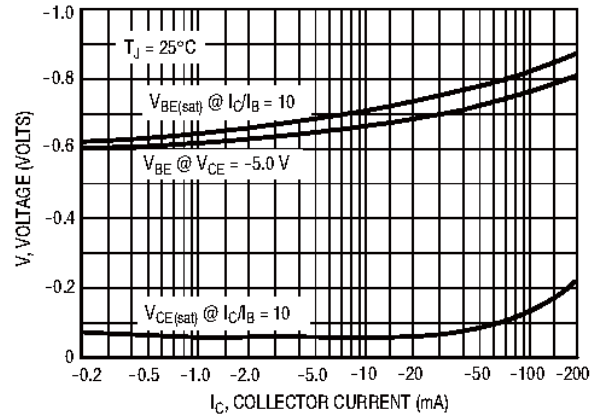


Figure 8. "On" Voltage

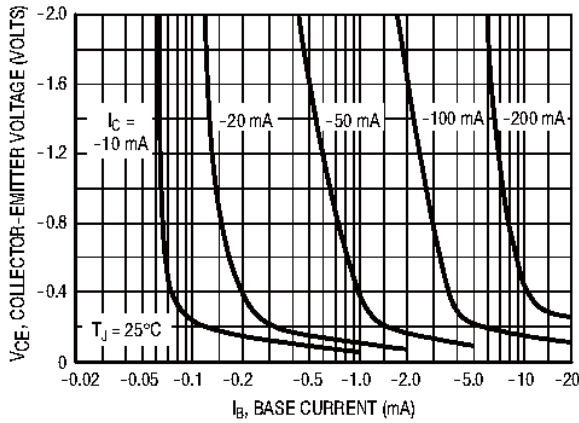


Figure 9. Collector Saturation Region

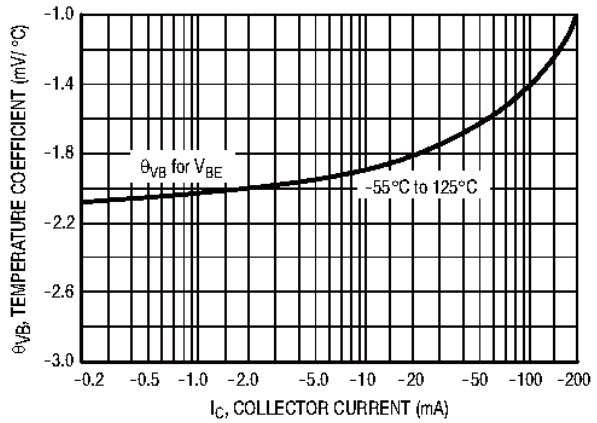


Figure 10. Base-Emitter Temperature Coefficient

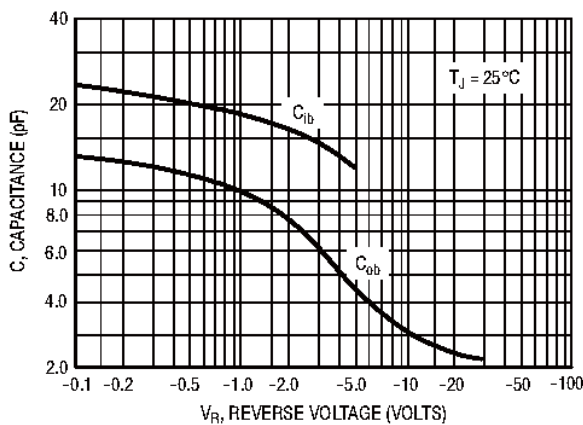


Figure 11. Capacitance

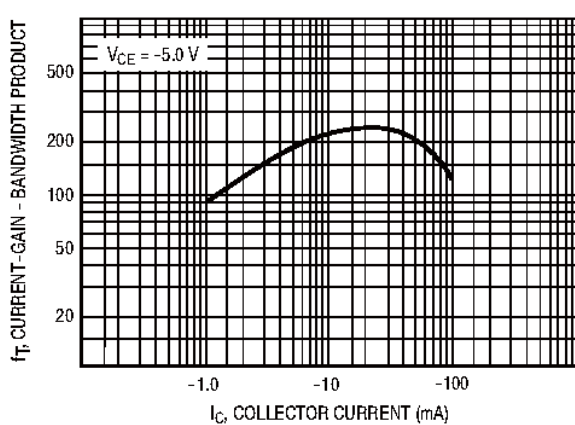


Figure 12. Current-Gain - Bandwidth Product