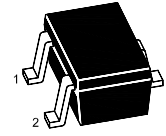


**PNP Silicon Epitaxial Planar Transistor**  
for general purpose and switching applications



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	$-V_{CBO}$	BC856W	80	V
		BC857W	50	
		BC858W	30	
		BC859W	30	
		BC860W	50	
Collector Emitter Voltage	$-V_{CEO}$	BC856W	65	V
		BC857W	45	
		BC858W	30	
		BC859W	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	$^\circ\text{C}$	

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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	$h_{FE}$	125	250	-
BC856BW~BC860BW	$h_{FE}$	220	475	-
BC856CW~BC860CW	$h_{FE}$	420	800	-
Collector Base Voltage at $-I_C = 10\text{ }\mu\text{A}$				
BC856W	$-V_{CBO}$	80	-	V
BC857W		50	-	
BC858W		30	-	
BC859W		30	-	
BC860W		50	-	
Collector Emitter Voltage at $-I_C = 10\text{ mA}$				
BC856W	$-V_{CEO}$	65	-	V
BC857W		45	-	
BC858W		30	-	
BC859W		30	-	
BC860W		45	-	
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

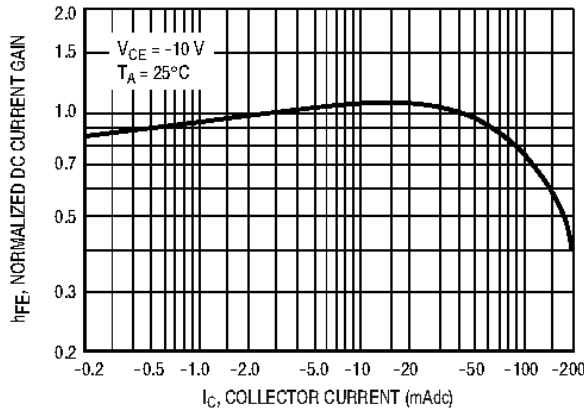


Figure 1. Normalized DC Current Gain

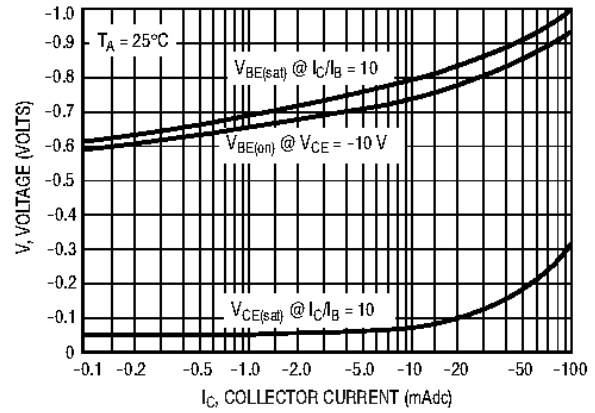


Figure 2. "Saturation" and "On" Voltages

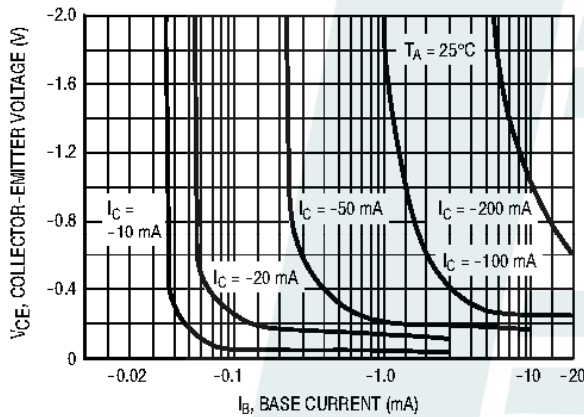


Figure 3. Collector Saturation Region

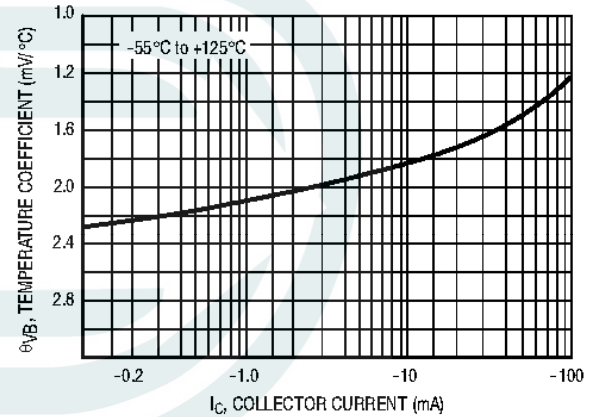


Figure 4. Base-Emitter Temperature Coefficient

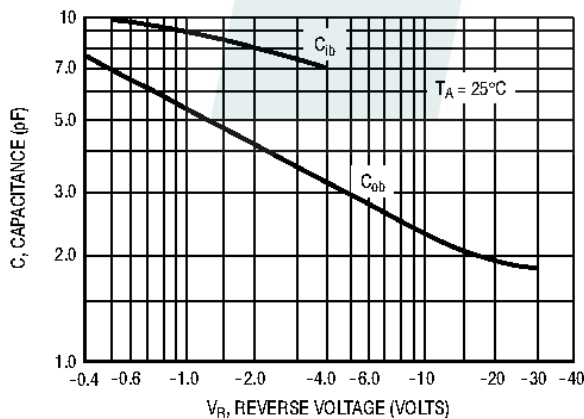


Figure 5. Capacitances

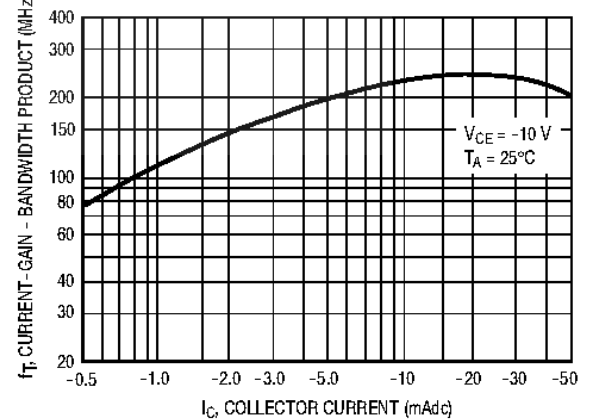


Figure 6. Current-Gain - Bandwidth Product

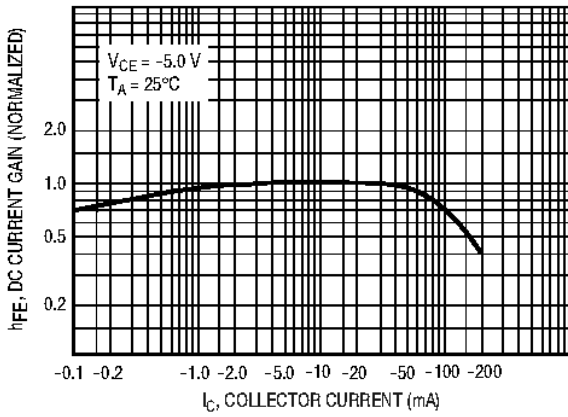


Figure 7. DC Current Gain

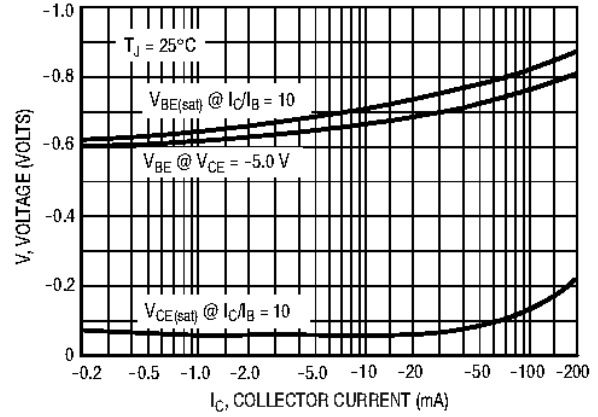


Figure 8. "On" Voltage

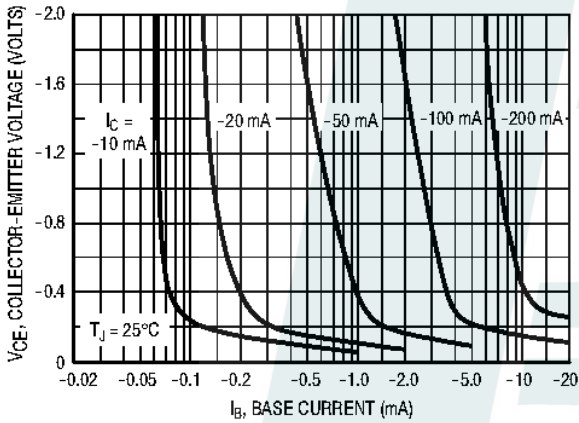


Figure 9. Collector Saturation Region

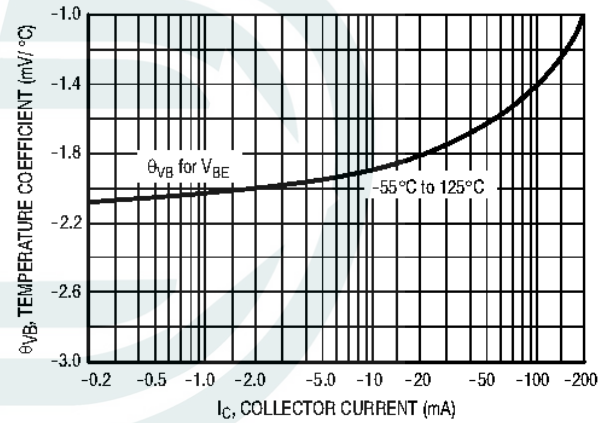


Figure 10. Base-Emitter Temperature Coefficient

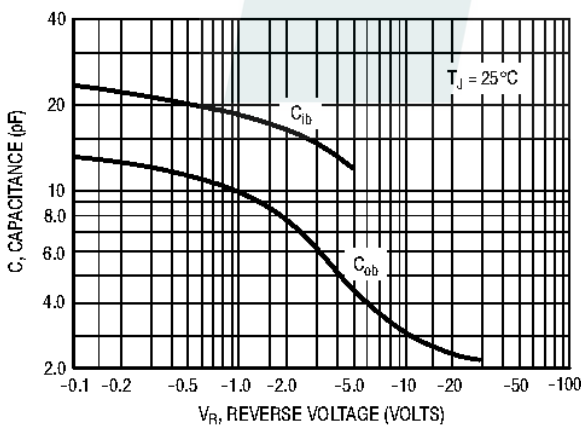


Figure 11. Capacitance

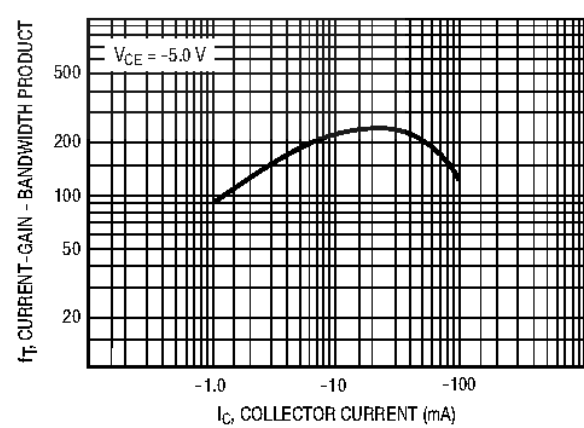


Figure 12. Current-Gain - Bandwidth Product

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