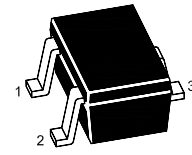


BC856BW-AH

PNP Silicon Epitaxial Planar Transistor

for general purpose and switching applications



Feature

- AEC-Q101 is Available
- Halogen and Antimony Free(HAF), RoHS compliant

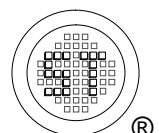
1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	80	V
Collector Emitter Voltage	$-V_{CEO}$	65	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Peak Collector Current, Pulsed	$-I_{CM}$	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	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$	h_{FE}	220	475	-
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 Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{CBO}$	80	-	V
Collector Emitter Voltage at $-I_C = 10\text{ mA}$	$-V_{CEO}$	65	-	V
Emitter Base Voltage at $-I_E = 1\text{ }\mu\text{A}$	$-V_{EBO}$	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
Base Emitter Voltage at $-V_{CE} = 5\text{ V}$, $-I_C = 2\text{ mA}$ at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	$-V_{BE}$	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



Electrical Characteristics Curves

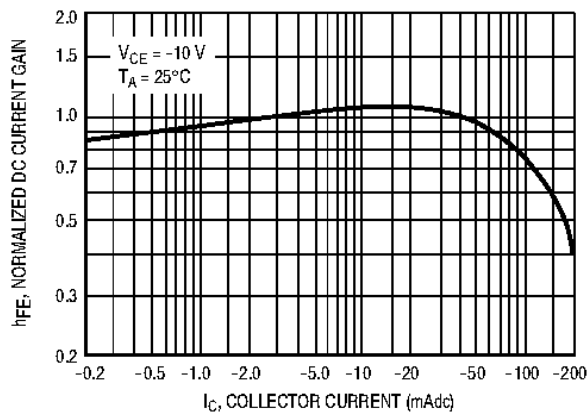


Figure 1. Normalized DC Current Gain

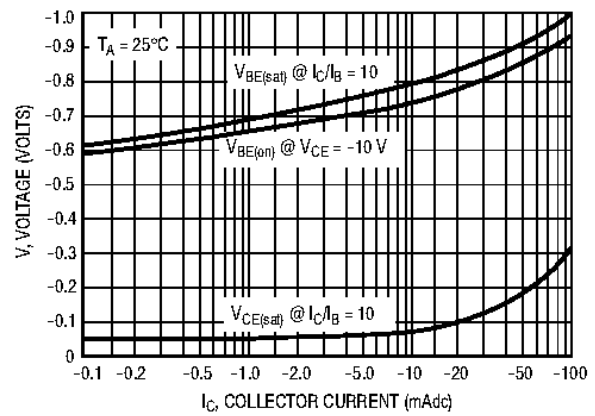


Figure 2. "Saturation" and "On" Voltages

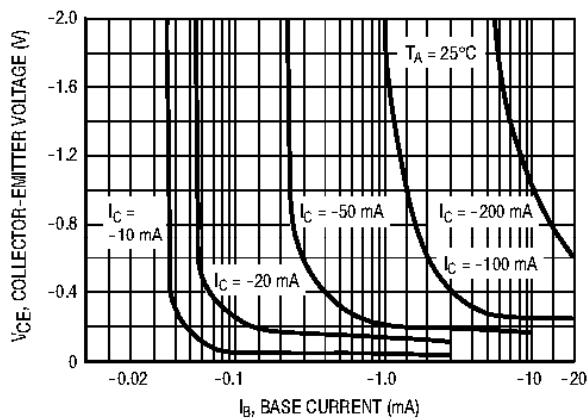


Figure 3. Collector Saturation Region

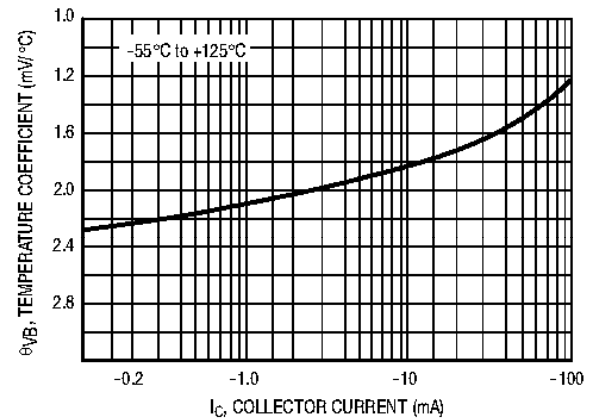


Figure 4. Base-Emitter Temperature Coefficient

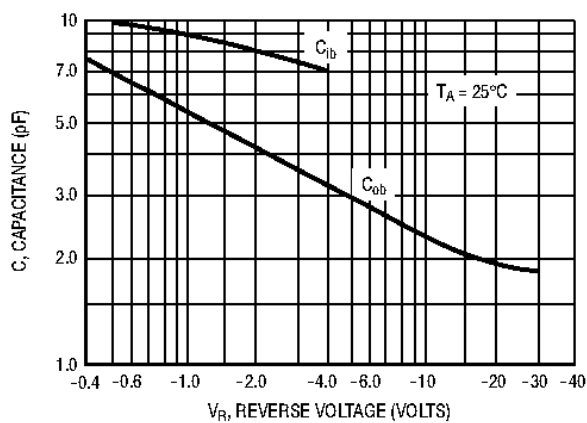


Figure 5. Capacitances

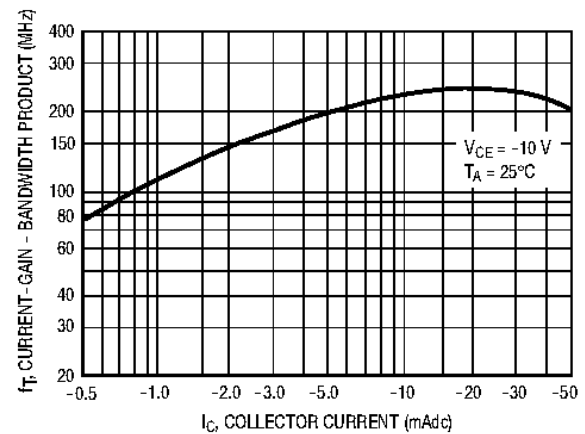
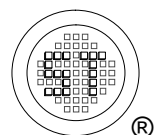


Figure 6. Current-Gain - Bandwidth Product



BC856BW-AH

Electrical Characteristics Curves

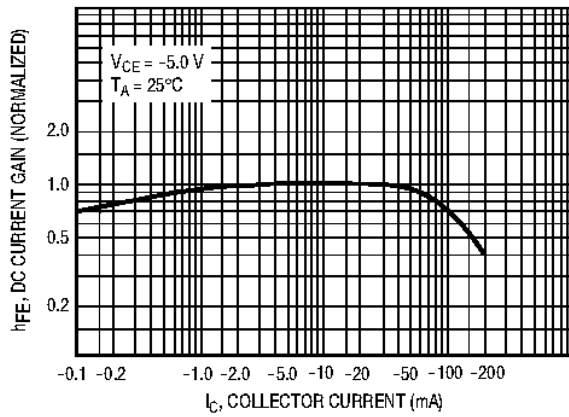


Figure 7. DC Current Gain

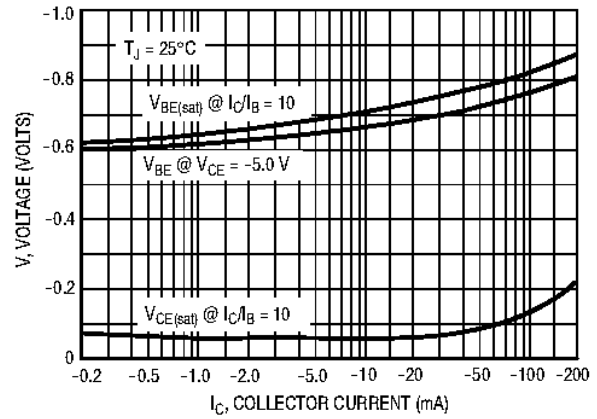


Figure 8. "On" Voltage

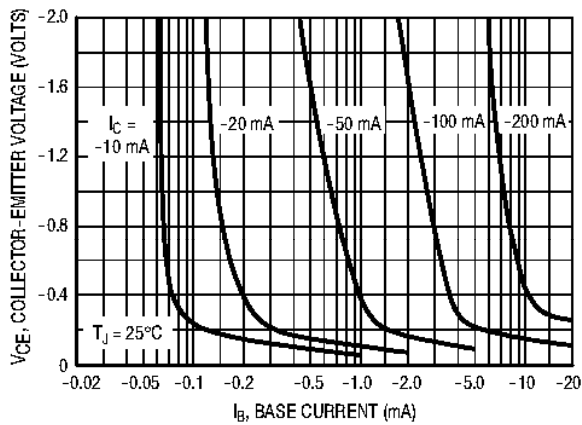


Figure 9. Collector Saturation Region

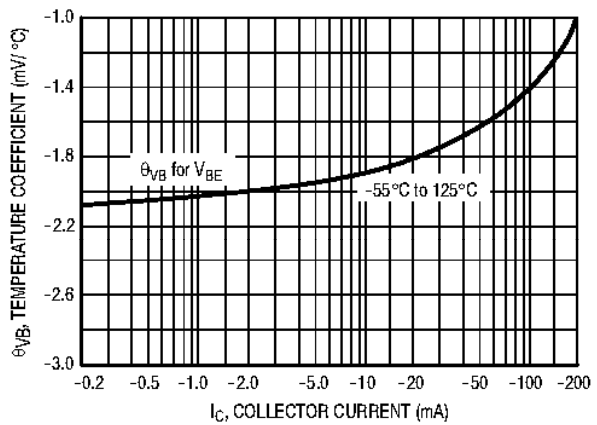


Figure 10. Base-Emitter Temperature Coefficient

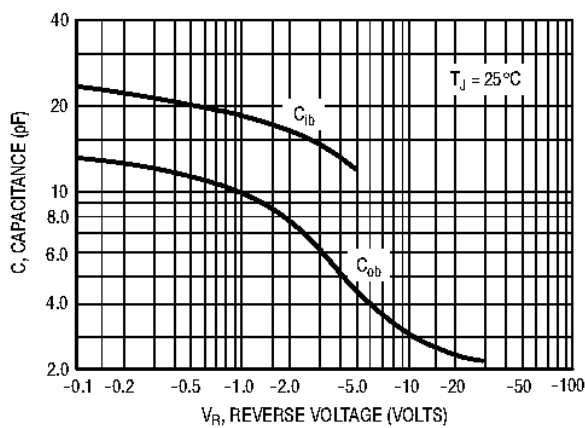


Figure 11. Capacitance

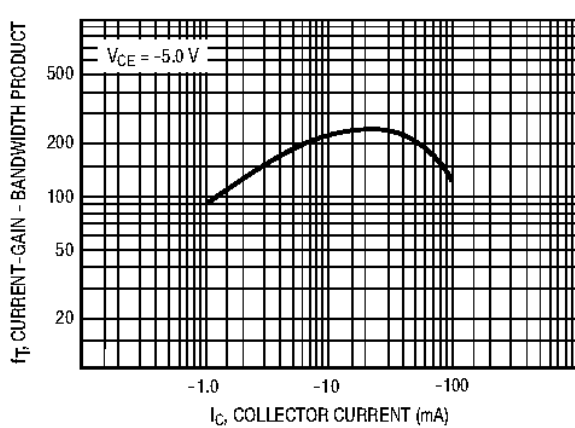
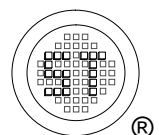
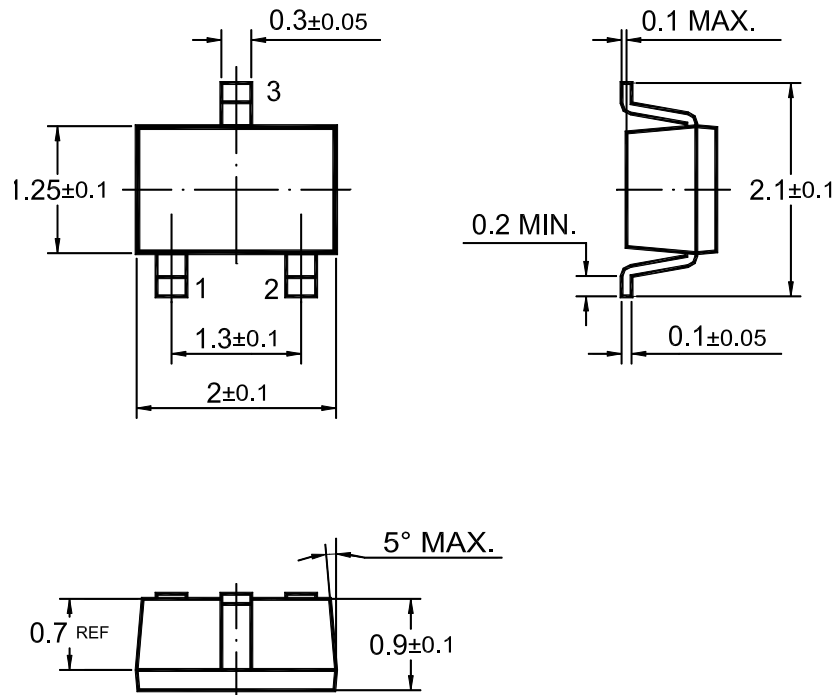


Figure 12. Current-Gain - Bandwidth Product

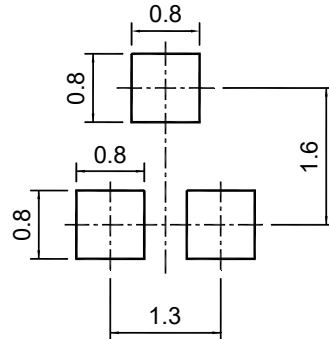


PACKAGE OUTLINE(Dimensions in mm)

SOT-323



Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOT-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" 3B " = Part No.
 " • " = HAF (Halogen and Antimony Free)
 " YM " = Date Code Marking
 " Y " = Year
 " M " = Month
 Font type: Arial

