

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

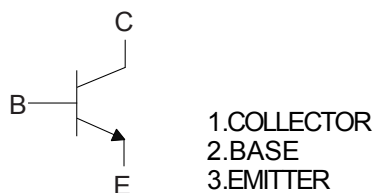
Maximum Ratings @ 25°C Unless Otherwise Specified

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 200°C/W Junction to Ambient
- Thermal Resistance: 83.3°C/W Junction to Case

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	BC556	-80	V
	BC557	-50	
	BC558	-30	
Collector-Emitter Voltage	BC556	-65	V
	BC557	-45	
	BC558	-30	
Emitter-Base Voltage	V_{EBO}	-5	V
Continuous Collector Current	I_C	-0.1	A
Power Dissipation @ $T_A=25^\circ\text{C}$	P_D	0.625	W
Power Dissipation @ $T_C=25^\circ\text{C}$	P_D	1.5	W

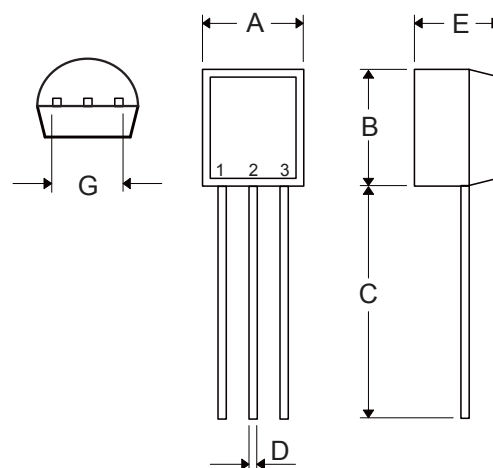
Marking:Type Number

Internal Structure



PNP Silicon Amplifier Transistor

TO-92



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.169	0.185	4.30	4.70	
B	0.169	0.185	4.30	4.70	
C	0.500	-----	12.70	-----	
D	0.015	0.022	0.38	0.55	
E	0.130	0.146	3.30	3.70	
G	0.095	0.105	2.42	2.67	Straight Lead
	0.173	0.220	4.40	5.60	Bent

Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ Unless Otherwise Specified

Parameter		Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	BC556	$V_{(BR)CBO}$	-80			V	$I_C=-100\mu\text{A}$, $I_E=0$
	BC557		-50				
	BC558		-30				
Collector-Emitter Breakdown Voltage	BC556	$V_{(BR)CEO}$	-65			V	$I_C=-2\text{mA}$, $I_B=0$
	BC557		-45				
	BC558		-30				
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	$I_E=-100\mu\text{A}$, $I_C=0$
Collector Cutoff Current	BC556	I_{CBO}			-0.1	μA	$V_{CB}=-70\text{V}$, $I_E=0$
	BC557				-0.1	μA	$V_{CB}=-45\text{V}$, $I_E=0$
	BC558				-0.1	μA	$V_{CB}=-25\text{V}$, $I_E=0$
Collector Cutoff Current	BC556	I_{CEO}			-0.1	μA	$V_{CE}=-60\text{V}$, $I_B=0$
	BC557				-0.1	μA	$V_{CE}=-40\text{V}$, $I_B=0$
	BC558				-0.1	μA	$V_{CE}=-25\text{V}$, $I_B=0$
Emitter Cutoff Current		I_{EBO}			-0.1	μA	$V_{EB}=-5\text{V}$, $I_C=0$
DC Current Gain		h_{FE}	120		800		$V_{CE}=-5\text{V}$, $I_C=-2\text{mA}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$			-0.3	V	$I_C=-10\text{mA}$, $I_B=-0.5\text{mA}$
					-0.65	V	$I_C=-100\text{mA}$, $I_B=-5\text{mA}$
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			-0.8	V	$I_C=-10\text{mA}$, $I_B=-0.5\text{mA}$
					-1	V	$I_C=-100\text{mA}$, $I_B=-5\text{mA}$
Base-Emitter Voltage		V_{BE}	-0.55		-0.7	V	$V_{CE}=-5\text{V}$, $I_C=-2\text{mA}$
					-0.82	V	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$
Output Capacitance		C_{ob}			6	pF	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$
Transition Frequency		f_T		150		MHz	$V_{CE}=-5\text{V}$, $I_C=-10\text{mA}$, $f=100\text{MHz}$

Classification of h_{FE}

Rank	A	B	C
Range	120-220	180-460	420-800

Curve Characteristics

BC557/BC558

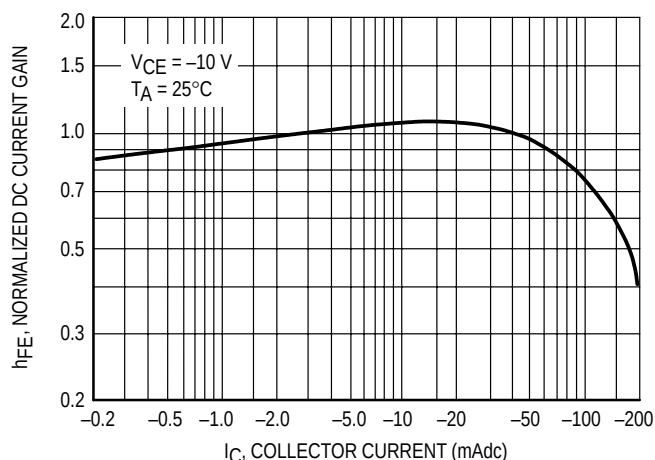


Figure 1. Normalized DC Current Gain

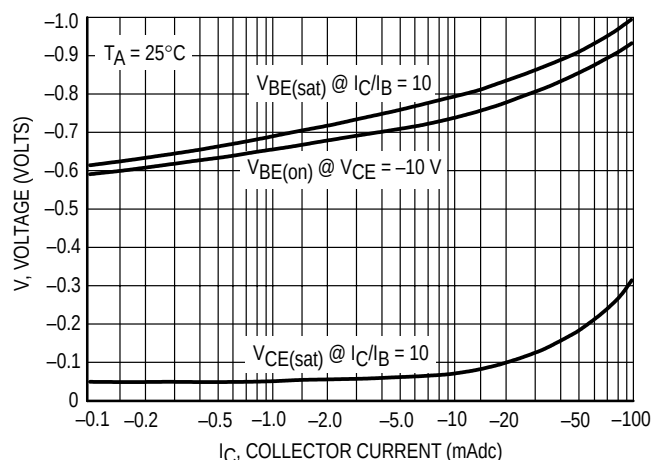


Figure 2. "Saturation" and "On" Voltages

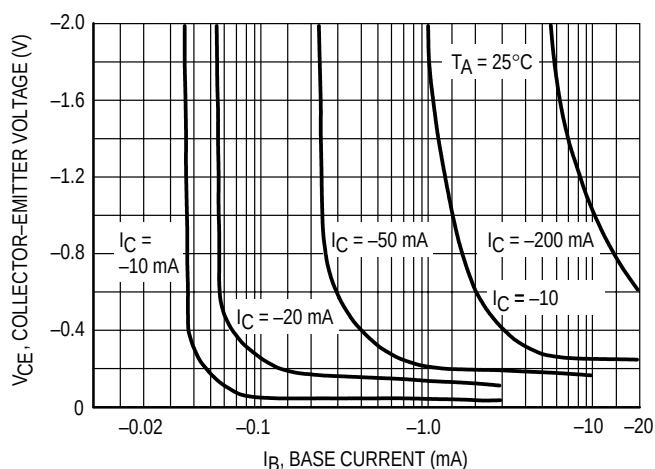


Figure 3. Collector Saturation Region

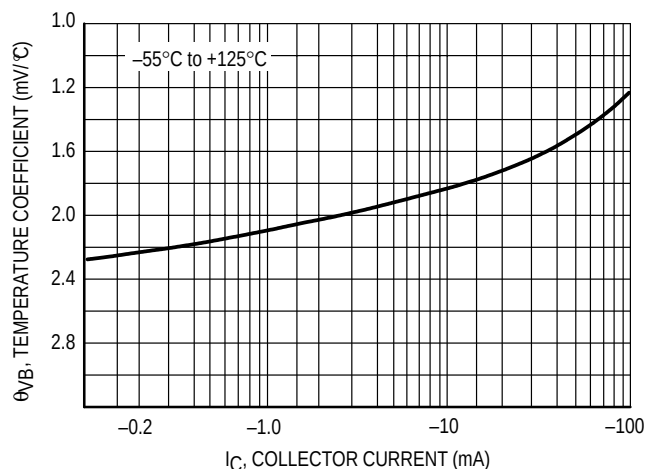


Figure 4. Base-Emitter Temperature Coefficient

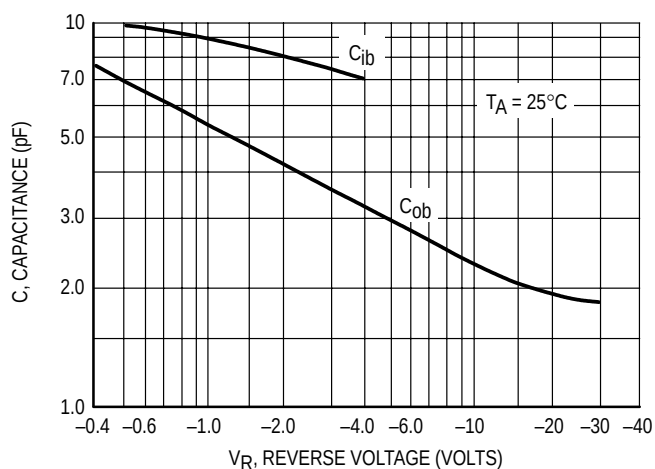


Figure 5. Capacitances

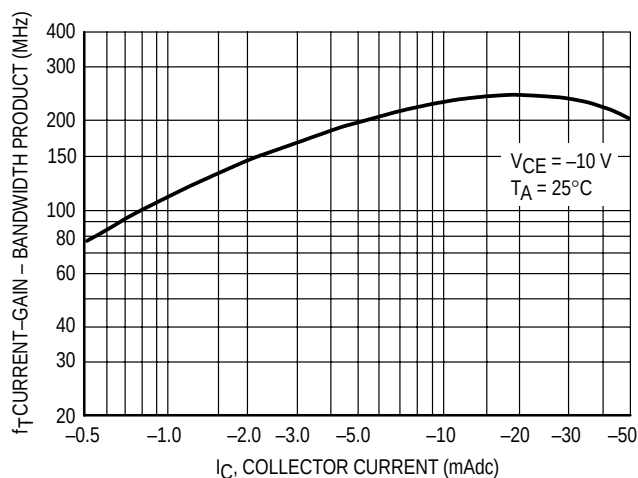


Figure 6. Current-Gain - Bandwidth Product

Curve Characteristics

BC556

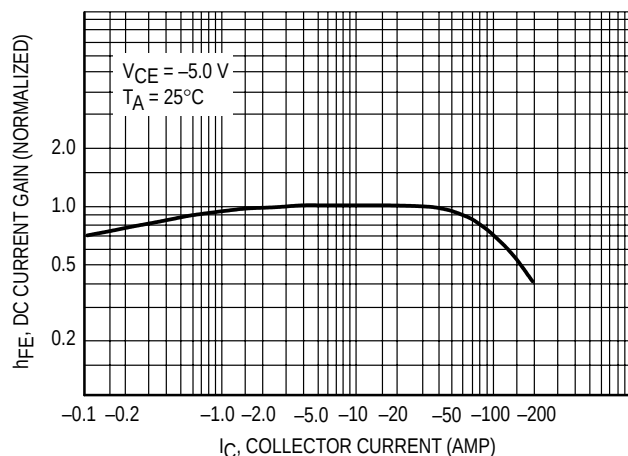


Figure 7. DC Current Gain

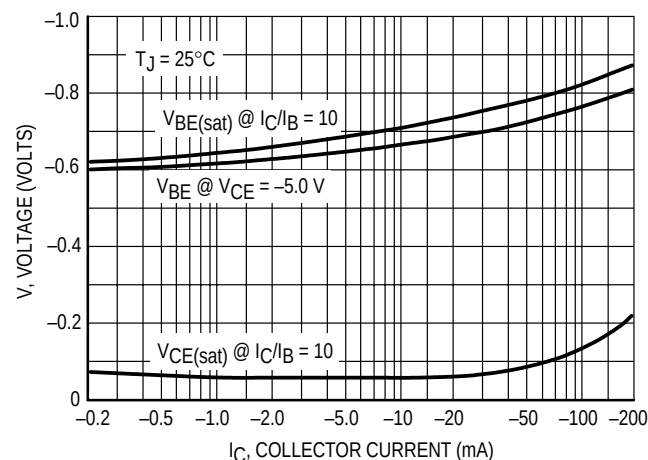


Figure 8. "On" Voltage

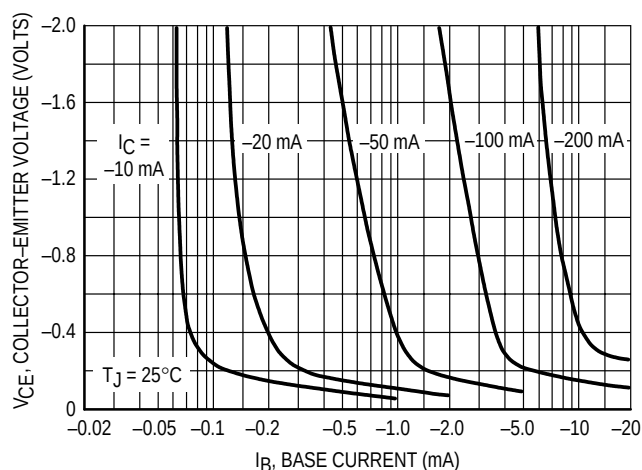


Figure 9. Collector Saturation Region

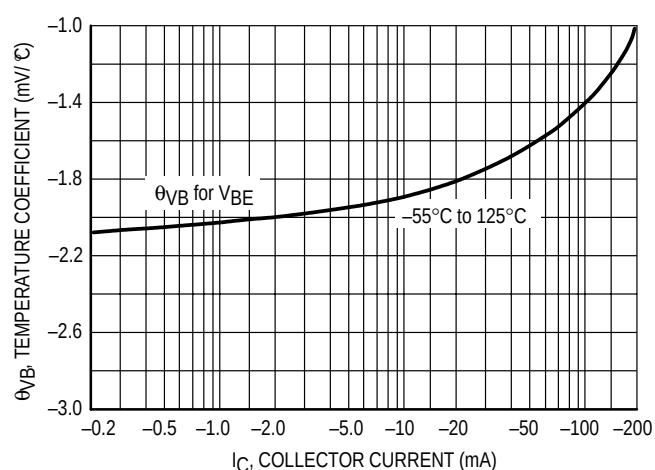


Figure 10. Base-Emitter Temperature Coefficient

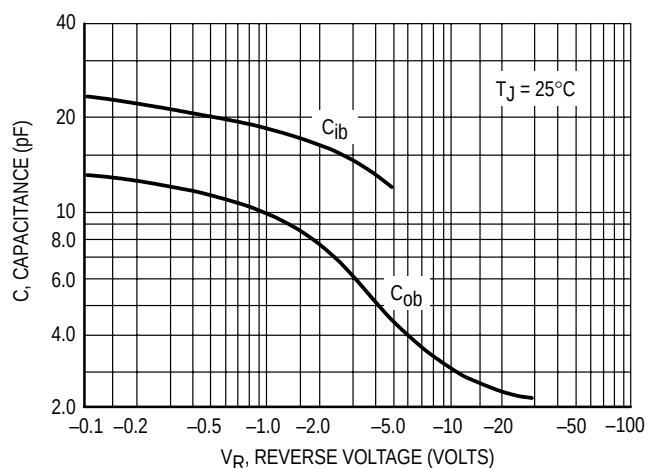


Figure 11. Capacitance

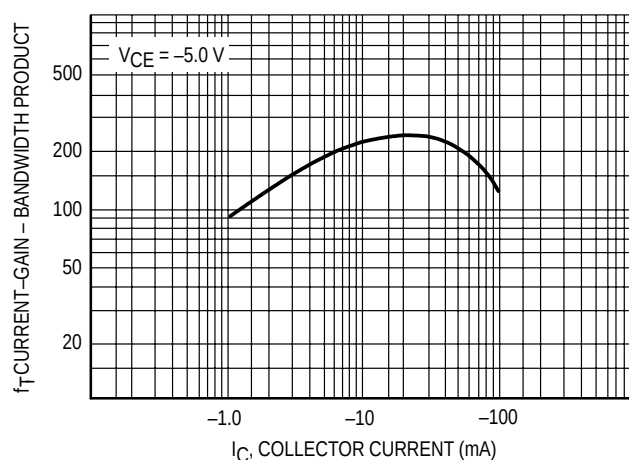


Figure 12. Current-Gain - Bandwidth Product

Ordering Information

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk:1k/Bag,100K/Ctn;

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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