

Features

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

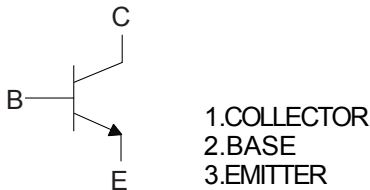
Maximum Ratings @ 25°C Unless Otherwise Specified

- 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

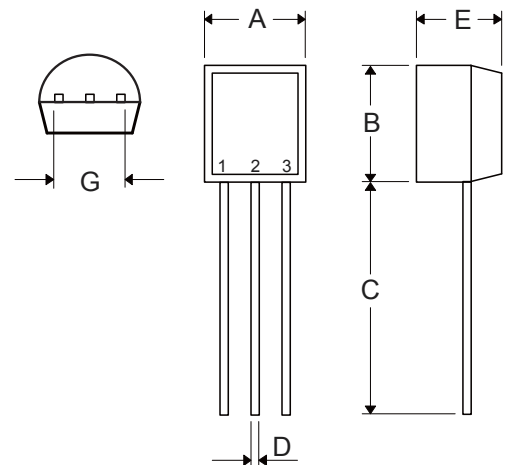
Marking:Type Number

Internal Structure



**PNP Silicon
Amplifier Transistor**

TO-92



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°C Unless Otherwise Specified

Parameter	Symbol	Min	Typ	Max	Units	Conditions
Collector-Base Breakdown Voltage	BC556	-80			V	I _C =-100μA, I _E =0
	BC557	-50				
	BC558	-30				
Collector-Emitter Breakdown Voltage	BC556	-65			V	I _C =-2mA, I _B =0
	BC557	-45				
	BC558	-30				
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5			V	I _E =-100μA, I _C =0
Collector Cutoff Current	BC556			-0.1	μA	V _{CB} =-70V, I _E =0
	BC557			-0.1	μA	V _{CB} =-45V, I _E =0
	BC558			-0.1	μA	V _{CB} =-25V, I _E =0
Collector Cutoff Current	BC556			-0.1	μA	V _{CE} =-60V, I _B =0
	BC557			-0.1	μA	V _{CE} =-40V, I _B =0
	BC558			-0.1	μA	V _{CE} =-25V, I _B =0
Emitter Cutoff Current	I _{EBO}			-0.1	μA	V _{EB} =-5V, I _C =0
DC Current Gain	h _{FE}	120		800		V _{CE} =-5V, I _C =-2mA
Collector-Emitter Saturation Voltage	V _{CE(sat)}			-0.3	V	I _C =-10mA, I _B =-0.5mA
				-0.65	V	I _C =-100mA, I _B =-5mA
Base-Emitter Saturation Voltage	V _{BE(sat)}			-0.8	V	I _C =-10mA, I _B =-0.5mA
				-1	V	I _C =-100mA, I _B =-5mA
Base-Emitter Voltage	V _{BE}	-0.55		-0.7	V	V _{CE} =-5V, I _C =-2mA
				-0.82	V	V _{CE} =-5V, I _C =-10mA
Output Capacitance	C _{ob}			6	pF	V _{CB} =-10V, I _E =0, f=1MHz
Transition Frequency	f _T		150		MHz	V _{CE} =-5V, I _C =-10mA, f=100MHz

Classification of h_{FE}

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

Curve Characteristics

BC557/BC558

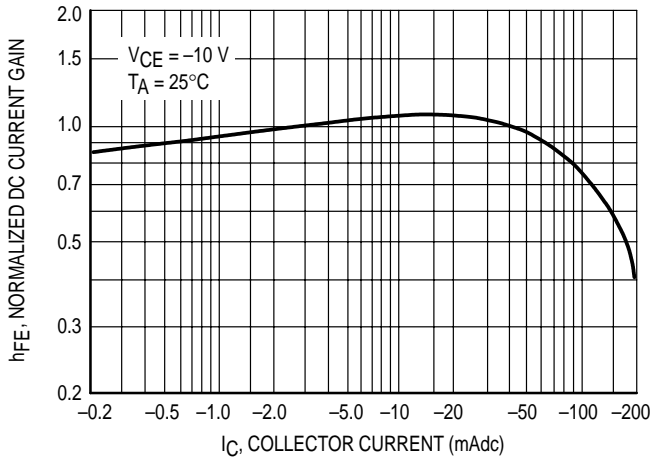


Figure 1. Normalized DC Current Gain

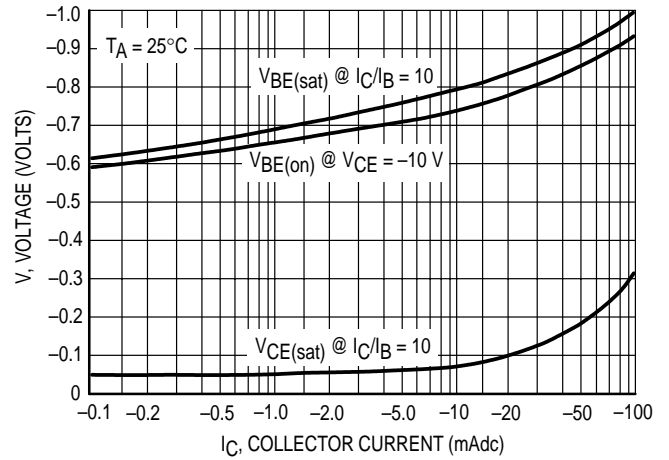


Figure 2. "Saturation" and "On" Voltages

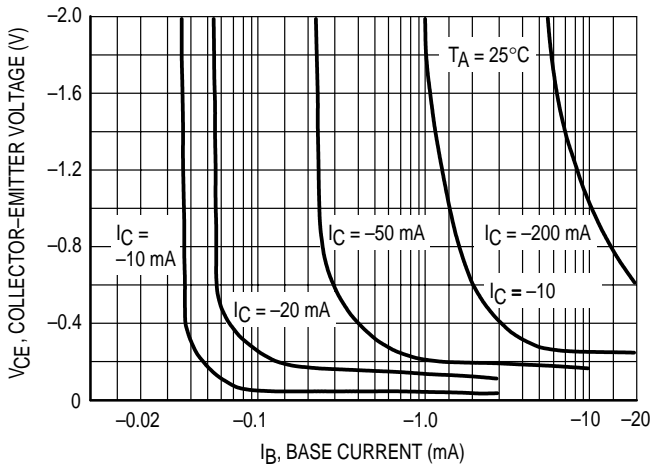


Figure 3. Collector Saturation Region

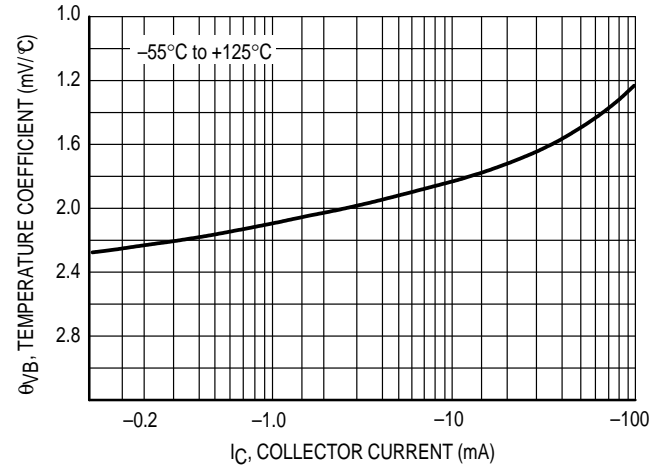


Figure 4. Base-Emitter Temperature Coefficient

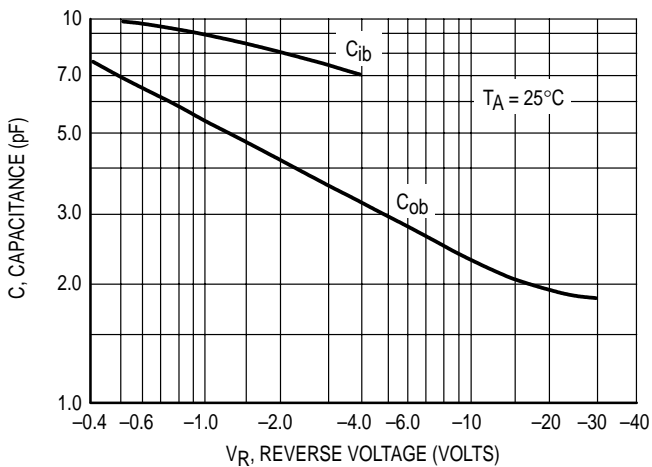


Figure 5. Capacitances

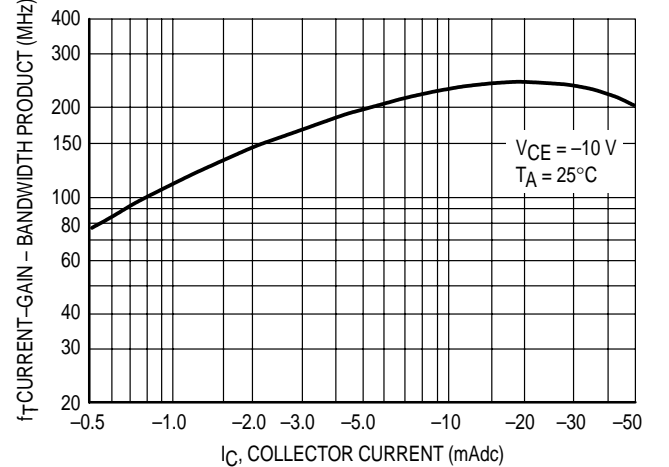


Figure 6. Current-Gain - Bandwidth Product

Curve Characteristics

BC556

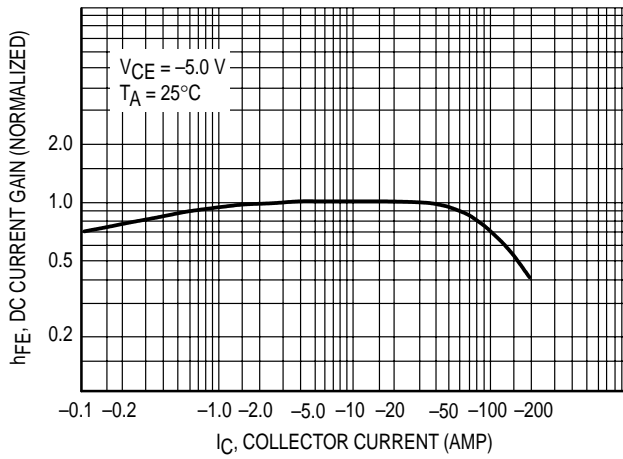


Figure 7. DC Current Gain

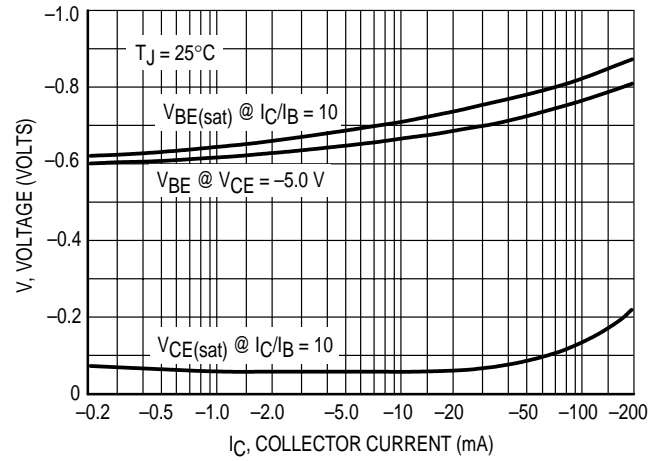


Figure 8. "On" Voltage

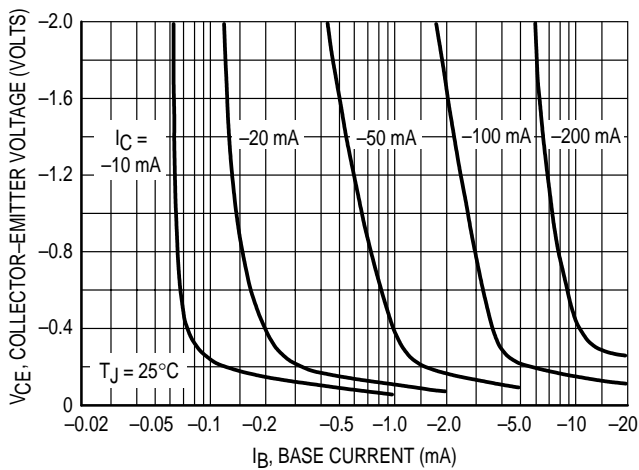


Figure 9. Collector Saturation Region

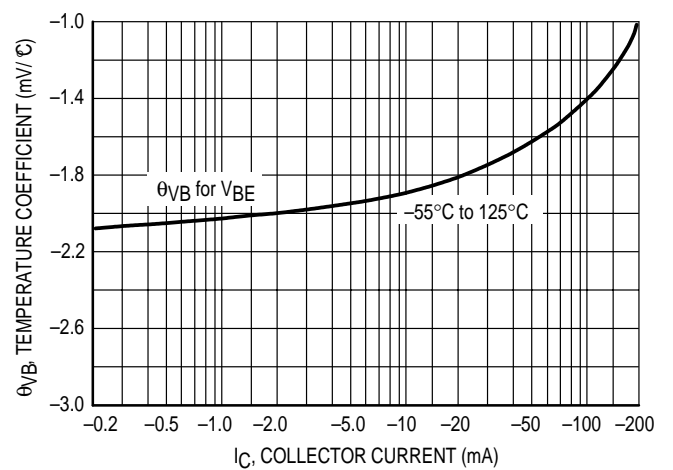


Figure 10. Base-Emitter Temperature Coefficient

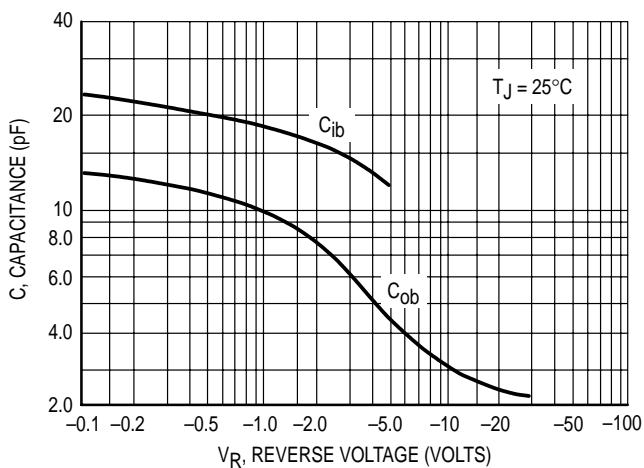


Figure 11. Capacitance

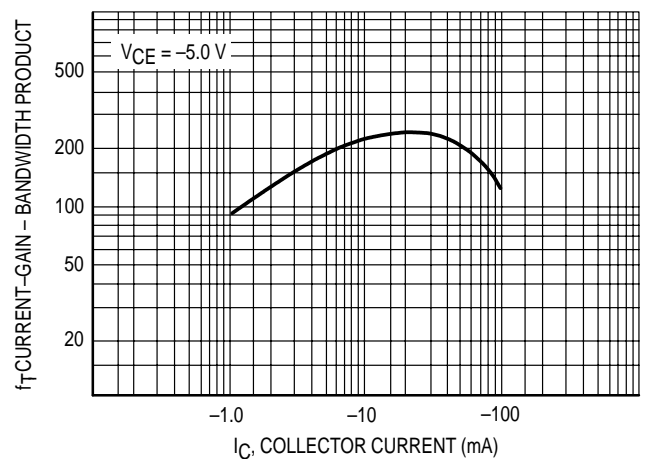


Figure 12. Current-Gain - Bandwidth Product

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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