

**BC556,B
 BC557,A,B,C
 BC558,B**

**PNP Silicon
 Amplifier Transistor
 625mW**

Features

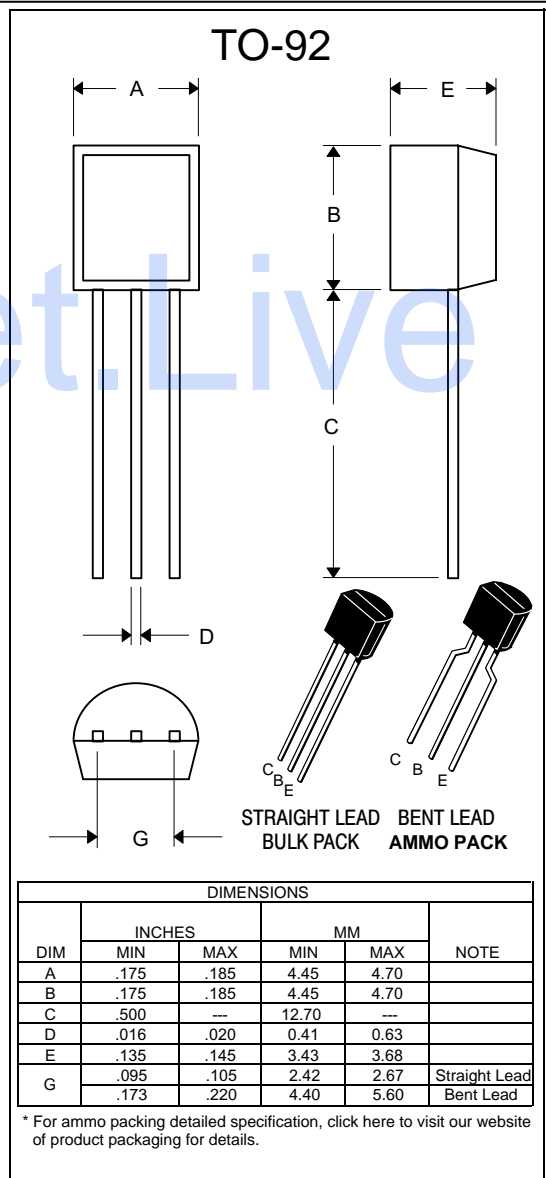
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- 150°C Junction Temperature
- Through Hole Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: Type Number
- Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Case: TO-92, Molded Plastic
- Polarity: indicated as below.

Maximum Ratings @ 25°C Unless Otherwise Specified

Charateristic	Symbol	Value	Unit
Collector-Emitter Voltage	BC556 BC557 BC558	-65 -45 -30	V
Collector-Base Voltage	BC556 BC557 BC558	-80 -50 -30	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current(DC)	I_C	-100	mA
Power Dissipation@ $T_A=25^\circ\text{C}$	P_d	625 5.0	mW mW/°C
Power Dissipation@ $T_C=25^\circ\text{C}$	P_d	1.5 12	W mW/°C
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	200	°C/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	83.3	°C/W
Operating & Storage Temperature	T_j, T_{STG}	-55~150	°C



BC556 thru BC558B

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Collector Cut-off Current (V _{CB} = -70 V, I _E = 0)	I _{CBO}	—	—	-100	nA
Collector–Emitter Breakdown Voltage (I _C = -2.0 mA, I _B = 0)	V _{(BR)CEO}	-65 -45 -30	— — —	— — —	V
Collector–Base Breakdown Voltage (I _C = -100 μA)	V _{(BR)CBO}	-80 -50 -30	— — —	— — —	V
Emitter–Base Breakdown Voltage (I _E = -100 μA, I _C = 0)	V _{(BR)EBO}	-5.0 -5.0 -5.0	— — —	— — —	V

ON CHARACTERISTICS

DC Current Gain (I _C = -10 μA, V _{CE} = -5.0 V)	BC557A	h _{FE}	—	90	—	—
	BC556B/557B/558B		—	150	—	
	BC557C		—	270	—	
(I _C = -2.0 mA, V _{CE} = -5.0 V)	BC556		120	—	500	
	BC557		120	—	800	
	BC558		120	—	800	
	BC557A		120	170	220	
	BC556B/557B/558B		180	290	460	
	BC557C		420	500	800	
(I _C = -100 mA, V _{CE} = -5.0 V)	BC557A		—	120	—	
	BC556B/557B/558B		—	180	—	
	BC557C		—	300	—	
Collector–Emitter Saturation Voltage (I _C = -100 mA, I _B = -5.0 mA)	V _{CE(sat)}	—	—	-0.3	V	
Base–Emitter Saturation Voltage (I _C = -100 mA, I _B = -5.0 mA)	V _{BE(sat)}	—	—	-1.0	V	
Base–Emitter On Voltage (I _C = -2.0 mA, V _{CE} = -5.0 Vdc)	V _{BE(on)}	-0.55	-0.62	-0.7	V	
(I _C = -10 mA, V _{CE} = -5.0 Vdc)		—	-0.7	-0.82		

SMALL-SIGNAL CHARACTERISTICS

Current–Gain — Bandwidth Product (I _C = -10 mA, V _{CE} = -5.0 V, f = 100 MHz)	BC556 BC557 BC558	f _T	150 150 150	280 320 360	— — —	MHz
Output Capacitance (V _{CB} = -10 V, I _C = 0, f = 1.0 MHz)		C _{ob}	—	3.0	6.0	pF

BC557/BC558

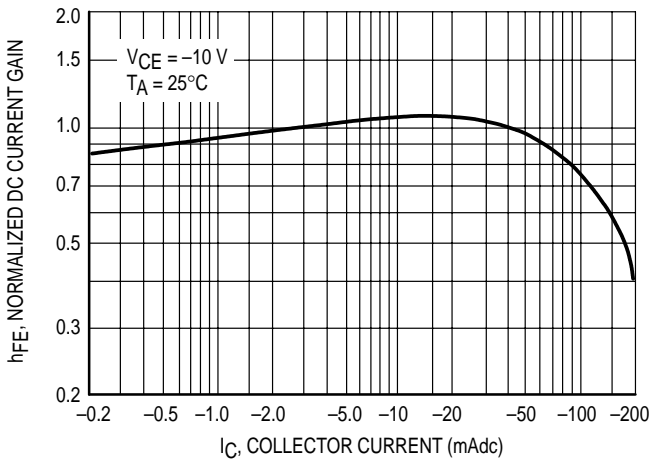


Figure 1. Normalized DC Current Gain

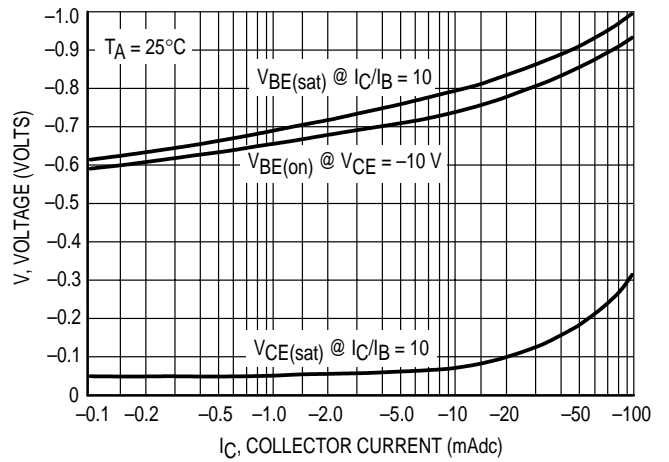


Figure 2. "Saturation" and "On" Voltages

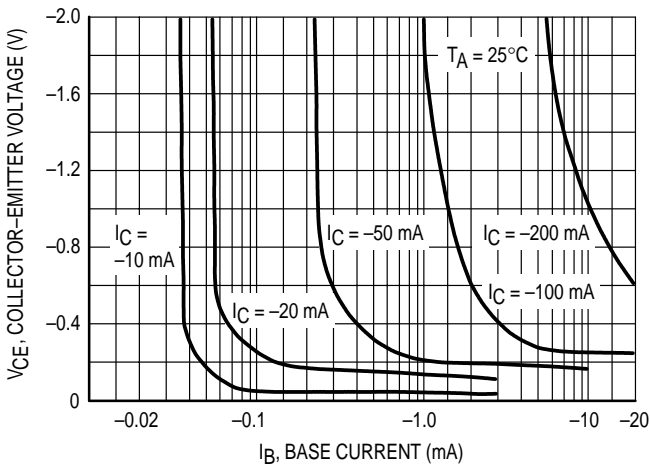


Figure 3. Collector Saturation Region

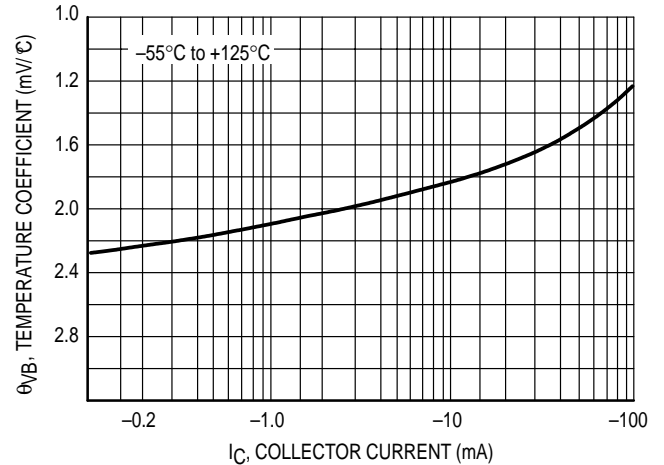


Figure 4. Base-Emitter Temperature Coefficient

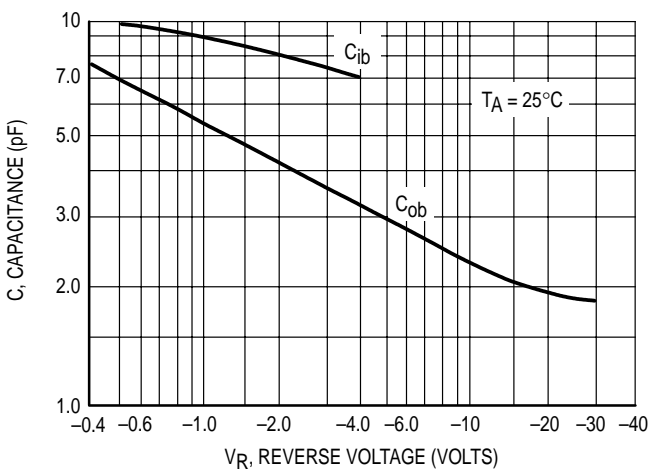


Figure 5. Capacitances

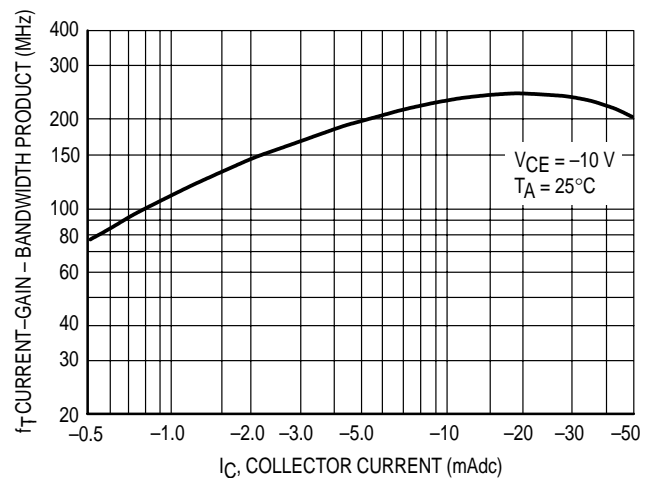


Figure 6. Current-Gain - Bandwidth Product

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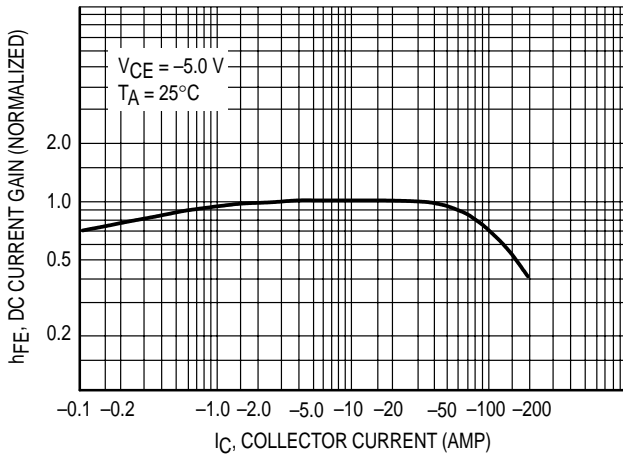


Figure 7. DC Current Gain

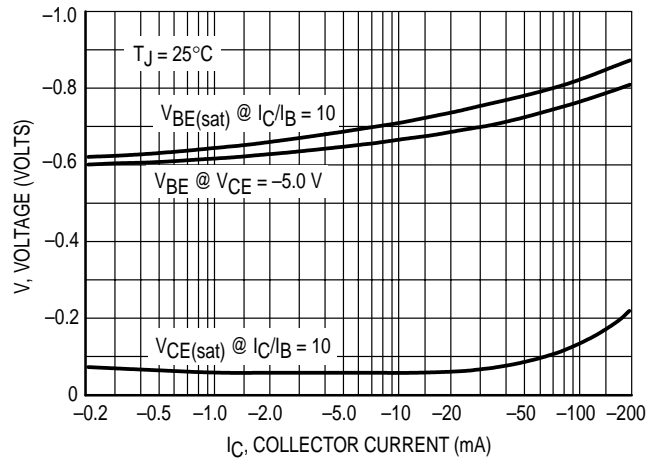


Figure 8. "On" Voltage

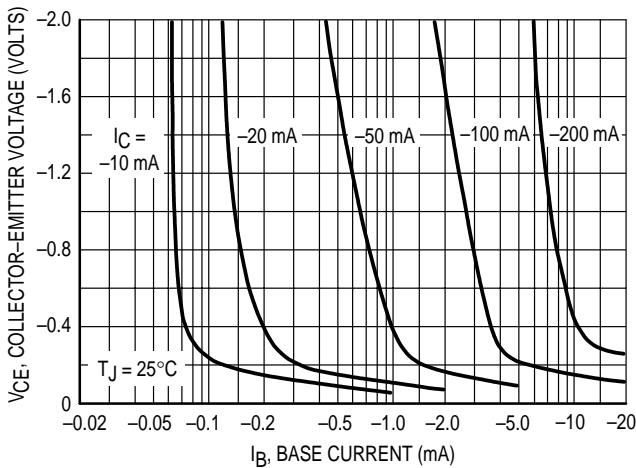


Figure 9. Collector Saturation Region

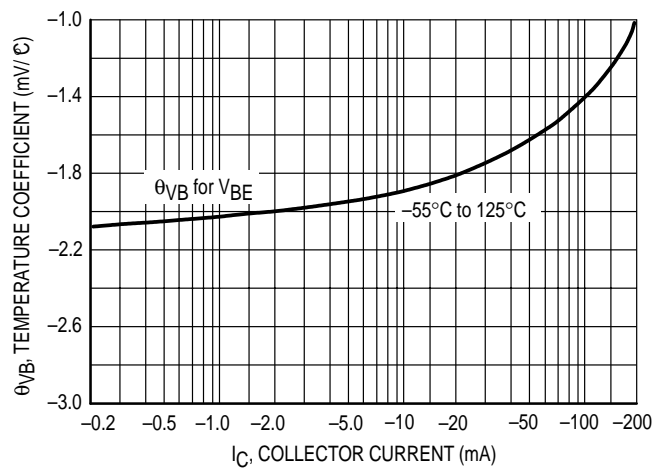


Figure 10. Base-Emitter Temperature Coefficient

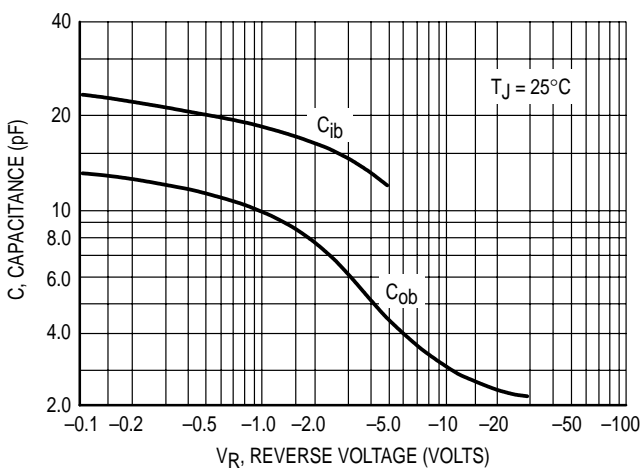


Figure 11. Capacitance

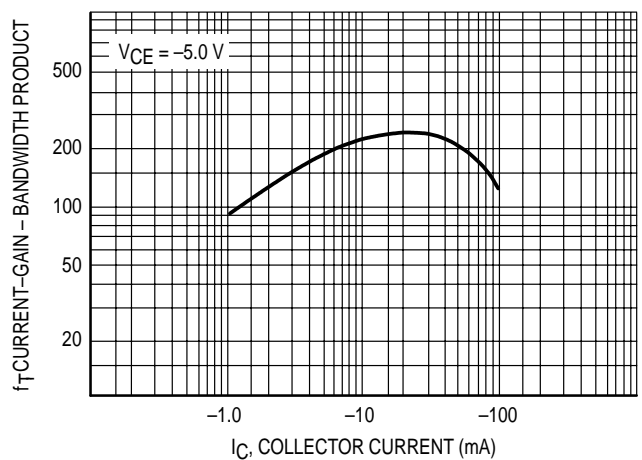


Figure 12. Current-Gain - Bandwidth Product



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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 20Kpcs/Carton
Part Number-BP	Bulk: 100Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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