

BC556A/B/C
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PNP Silicon
Amplifier Transistor
625mW

Features

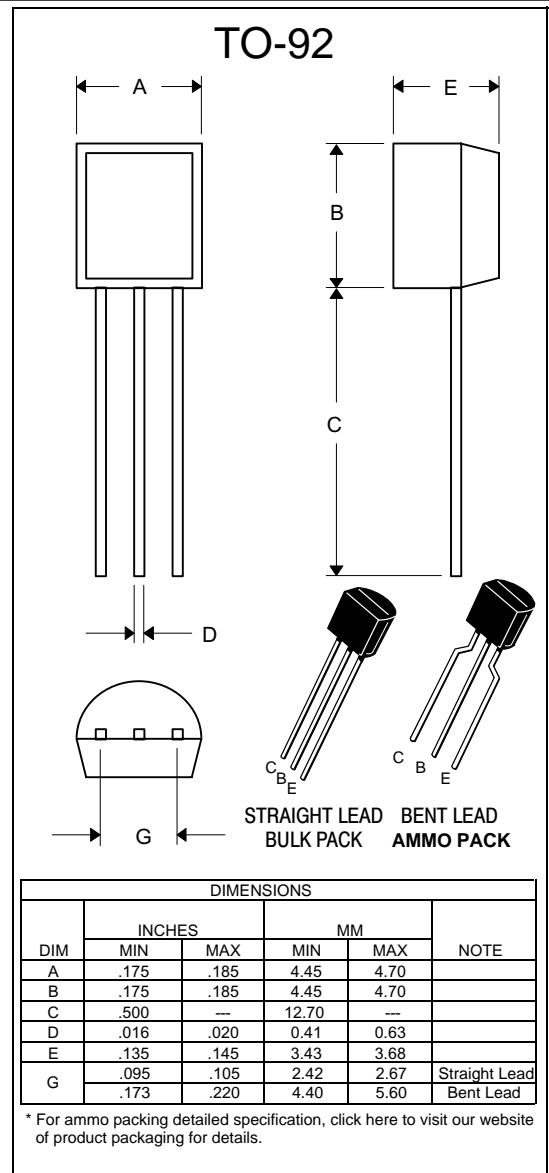
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- 150°C Junction Temperature
- Through Hole Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: Type Number
- Halogen free available upon request by adding suffix "-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	V_{CEO} -65 -45 -30	V
Collector-Base Voltage	BC556 BC557 BC558	V_{CBO} -80 -50 -30	V
Emitter-Base Voltage		V_{EBO} -5.0	V
Collector Current(DC)		I_C -100	mA
Power Dissipation@ $T_A=25^\circ C$		P_d 625 5.0	mW mW/°C
Power Dissipation@ $T_C=25^\circ C$		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



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC556	V _{(BR)CBO}	I _C = -0.1mA, I _E =0	-80			V
	BC557			-50			
	BC558			-30			
Collector-emitter breakdown voltage	BC556	V _{(BR)CEO}	I _C =-2mA, I _B =0	-65			V
	BC557			-45			
	BC558			-30			
Emitter-base breakdown voltage		V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Collector cut-off current	BC556	I _{CBO}	V _{CB} =-70V, I _E =0			-0.1	μA
	BC557		V _{CB} =-45V, I _E =0			-0.1	μA
	BC558		V _{CB} =-25V, I _E =0			-0.1	μA
Collector cut-off current	BC556	I _{CEO}	V _{CE} =-60V, I _B =0			-0.1	μA
	BC557		V _{CE} =-40V, I _B =0			-0.1	μA
	BC558		V _{CE} =-25V, I _B =0			-0.1	μA
Emitter cut-off current		I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	μA
DC current gain		h _{FE} *	V _{CE} =-5V, I _C =-2mA	120		800	
Collector-emitter saturation voltage		V _{CE(sat)}	I _C =-10mA, I _B =-0.5mA			-0.3	V
			I _C =-100mA, I _B =-5mA			-0.65	V
Base-emitter saturation voltage		V _{BE(sat)}	I _C =-10mA, I _B =-0.5mA			-0.8	V
			I _C =-100mA, I _B =-5mA			-1	V
Base-emitter voltage		V _{BE}	V _{CE} =-5V, I _C =-2mA	-0.55		-0.7	V
			V _{CE} =-5V, I _C =-10mA			-0.82	V
Collector output capacitance		C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz			6	pF
Transition frequency	BC556	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz		150		MHz
	BC557				150		MHz
	BC558				150		MHz

CLASSIFICATION of h_{FE}

RANK	A	B	C
RANGE	120-220	180-460	420-800

BC557/BC558

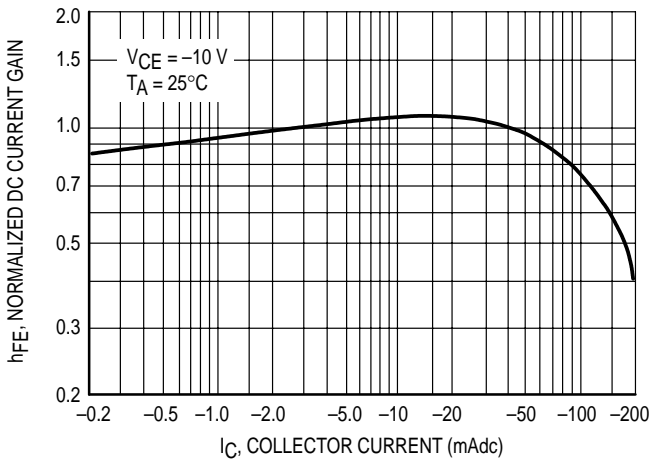


Figure 1. Normalized DC Current Gain

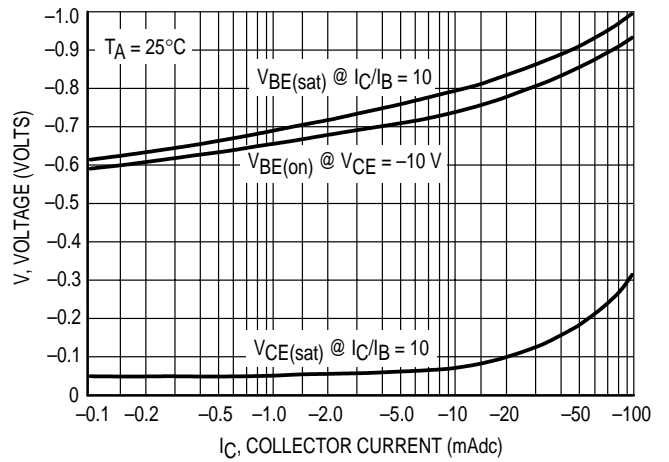


Figure 2. "Saturation" and "On" Voltages

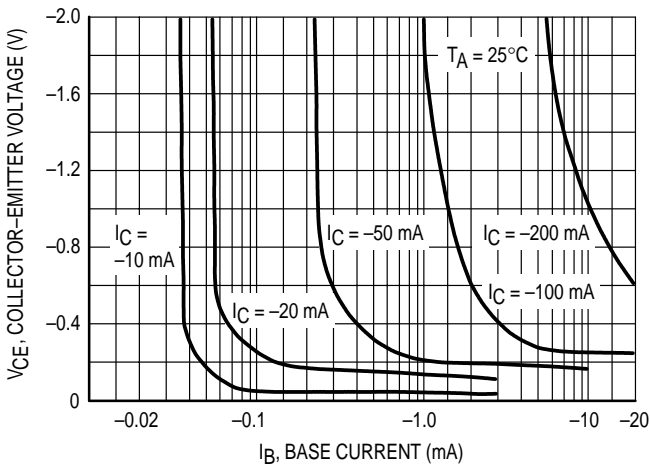


Figure 3. Collector Saturation Region

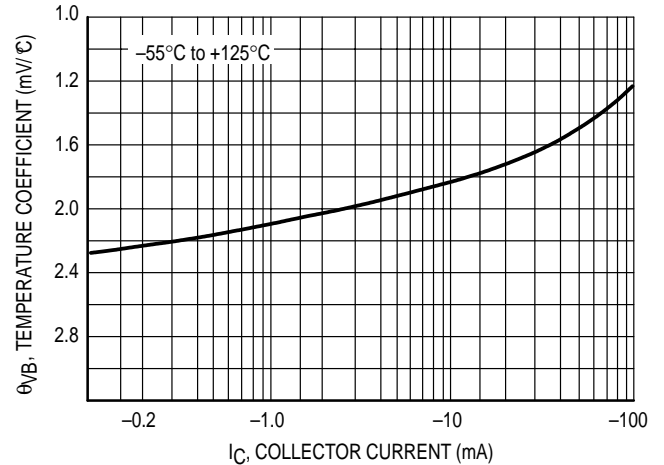


Figure 4. Base-Emitter Temperature Coefficient

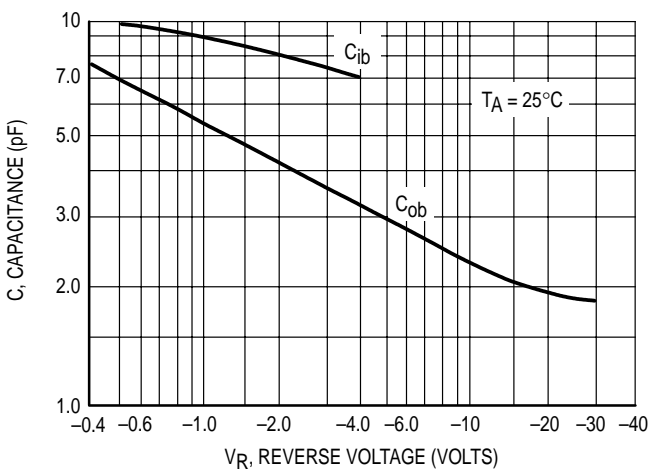


Figure 5. Capacitances

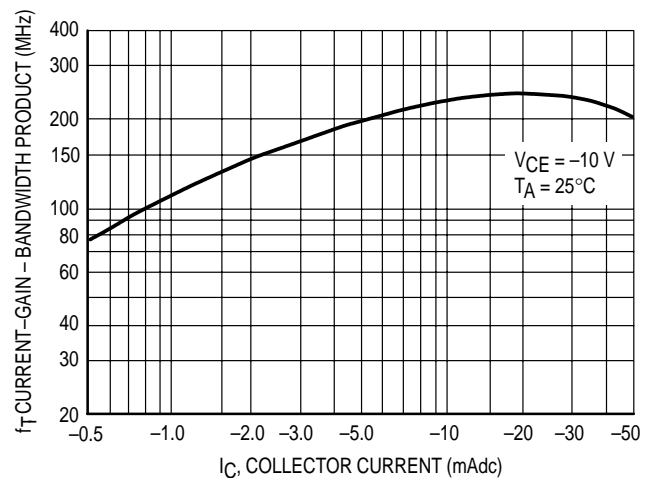


Figure 6. Current-Gain - Bandwidth Product

BC556

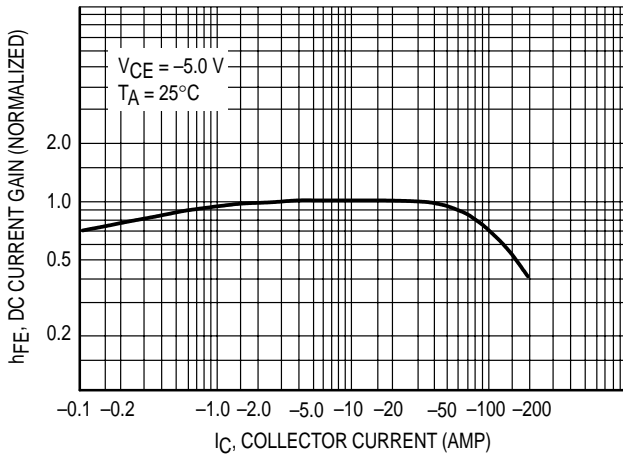


Figure 7. DC Current Gain

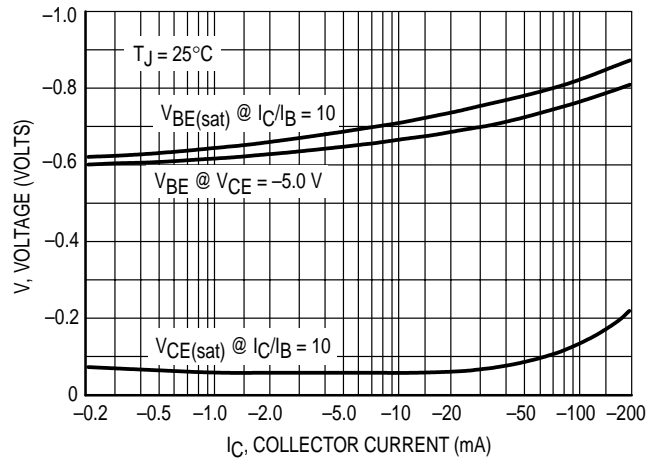


Figure 8. "On" Voltage

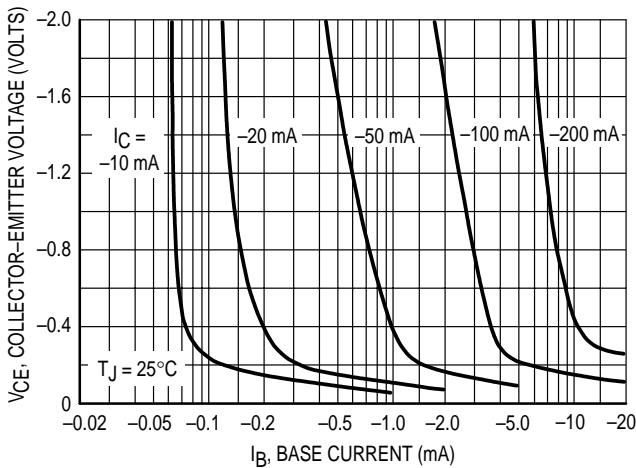


Figure 9. Collector Saturation Region

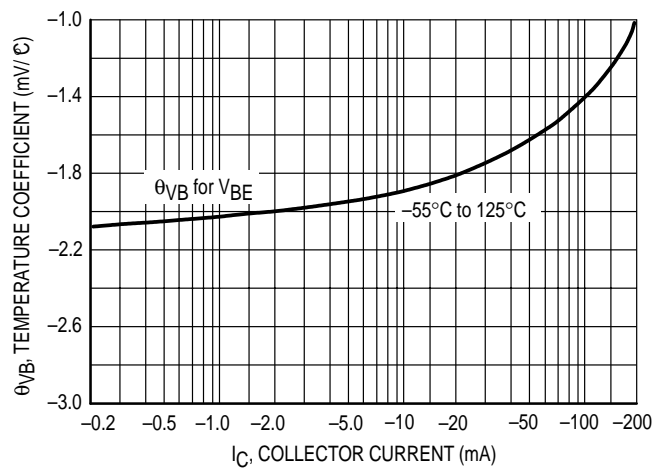


Figure 10. Base-Emitter Temperature Coefficient

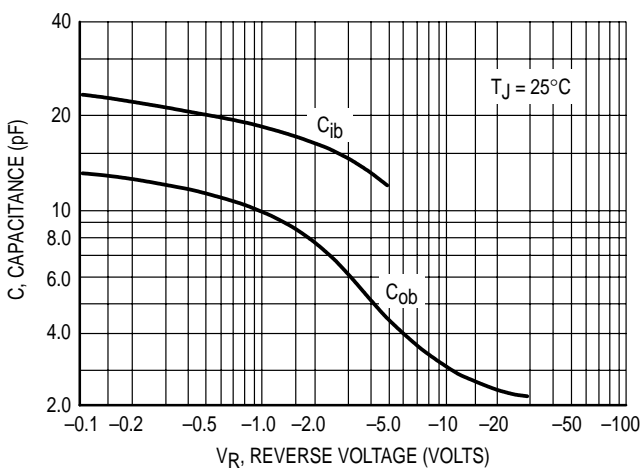


Figure 11. Capacitance

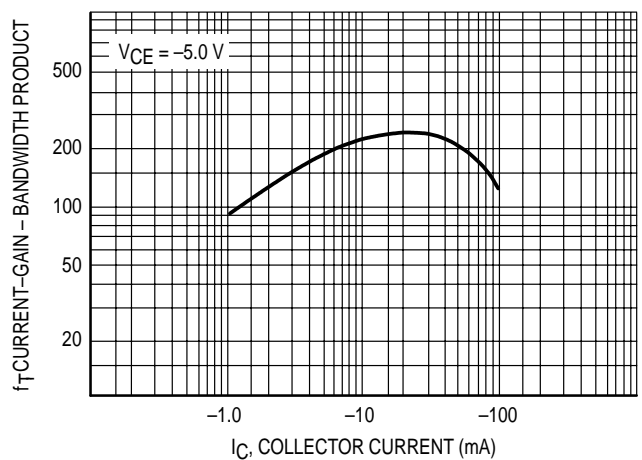


Figure 12. Current-Gain - Bandwidth Product



Micro Commercial Components

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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