Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

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
- Moisure Sensitivity Level 1
- Marking:Type Number

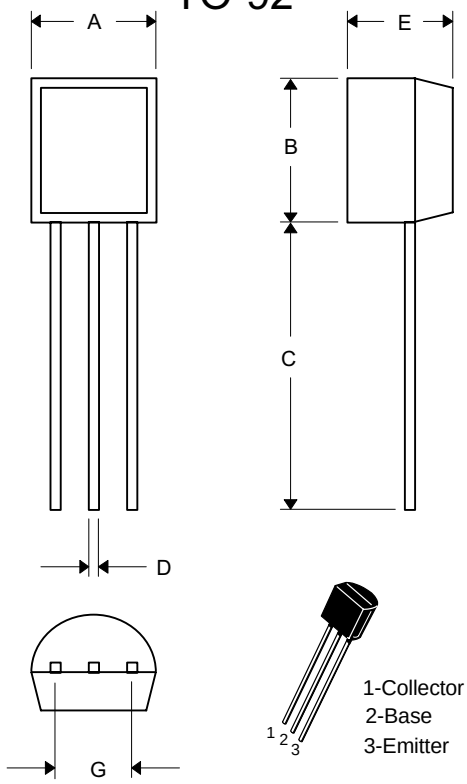
Mechanical Data

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

Maximum Ratings @ 25°C Unless Otherwise Specified

Charateristic		Symbol	Value	Unit
Collector-Emitter Voltage	BC556	V_{CEO}	-65	V
	BC557		-45	
	BC558		-30	
Collector-Base Voltage	BC556	V_{CBO}	-80	V
	BC557		-50	
	BC558		-30	
Emitter-Base Voltage		V_{EBO}	-5.0	V
Collector Current(DC)		I_C	-100	mA
Power Dissipation@T_A=25°C		P_d	625 5.0	mW mW/°C
Power Dissipation@T_C=25°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

TO-92



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.096	.104	2.44	2.64	

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

Characteristic		Symbol	Min	Typ	Max	Unit
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 mAdc, I_B = 0)		$V_{(BR)CEO}$				V
	BC556		–65	—	—	
	BC557		–45	—	—	
	BC558		–30	—	—	
Collector–Base Breakdown Voltage (I_C = –100 µAdc)		$V_{(BR)CBO}$				V
	BC556		–80	—	—	
	BC557		–50	—	—	
	BC558		–30	—	—	
Emitter–Base Breakdown Voltage (I_E = –100 µAdc, I_C = 0)		$V_{(BR)EBO}$				V
	BC556		–5.0	—	—	
	BC557		–5.0	—	—	
	BC558		–5.0	—	—	
ON CHARACTERISTICS						
DC Current Gain		h_{FE}				—
(I_C = –10 µAdc, V_{CE} = –5.0 V)	BC557A		—	90	—	
	BC556B/557B/558B		—	150	—	
	BC557C		—	270	—	
(I_C = –2.0 mAdc, 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 mAdc, V_{CE} = –5.0 V)	BC557A		—	120	—	
	BC556B/557B/558B		—	180	—	
	BC557C		—	300	—	
Collector–Emitter Saturation Voltage (I_C = –100mAdc, I_B = –5.0 mAdc)		$V_{CE(sat)}$	—	---	–0.3	V
Base–Emitter Saturation Voltage (I_C = –100 mAdc, I_B = –5.0mAdc)		$V_{BE(sat)}$	—	—	–1.0	V
Base–Emitter On Voltage		$V_{BE(on)}$				V
(I_C = –2.0 mAdc, V_{CE} = –5.0 Vdc)			–0.55	–0.62	–0.7	
(I_C = –10 mAdc, 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)		f_T				MHz
	BC556		150	280	—	
	BC557		150	320	—	
	BC558		150	360	—	
Output Capacitance (V_{CB} = –10 V, I_C = 0, f = 1.0 MHz)		C_{ob}	—	3.0	6.0	pF

BC557/BC558

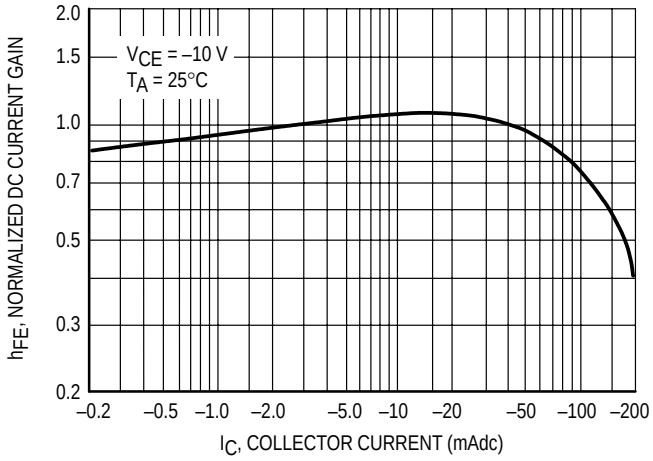


Figure 1. Normalized DC Current Gain

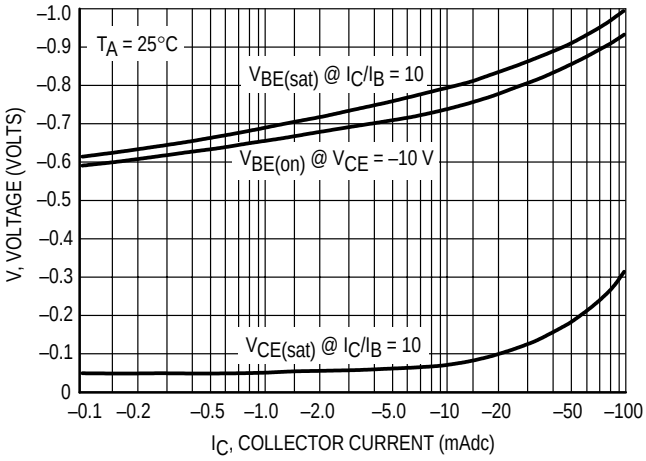


Figure 2. "Saturation" and "On" Voltages

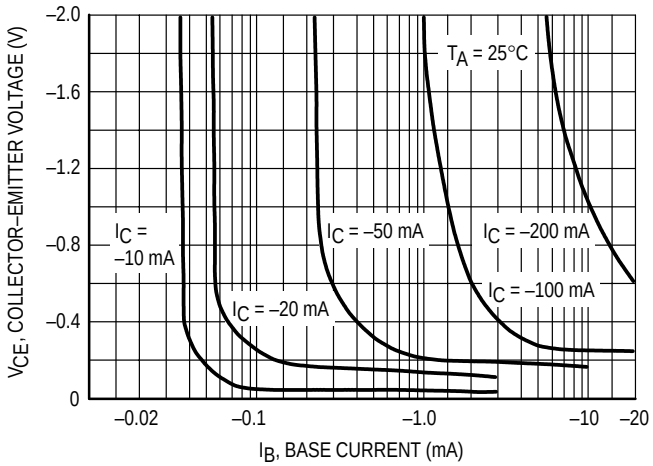


Figure 3. Collector Saturation Region

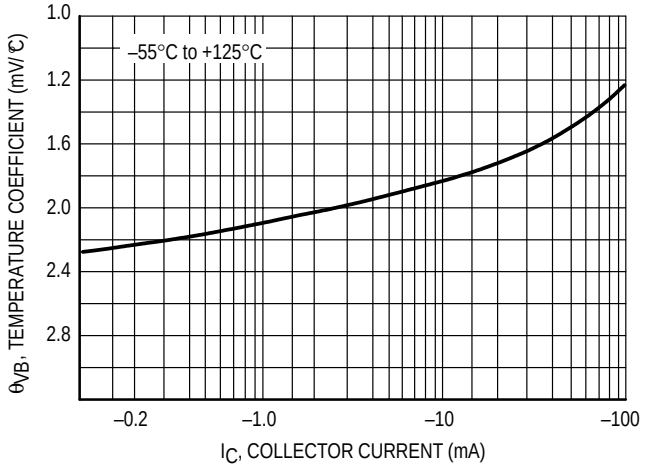


Figure 4. Base–Emitter Temperature Coefficient

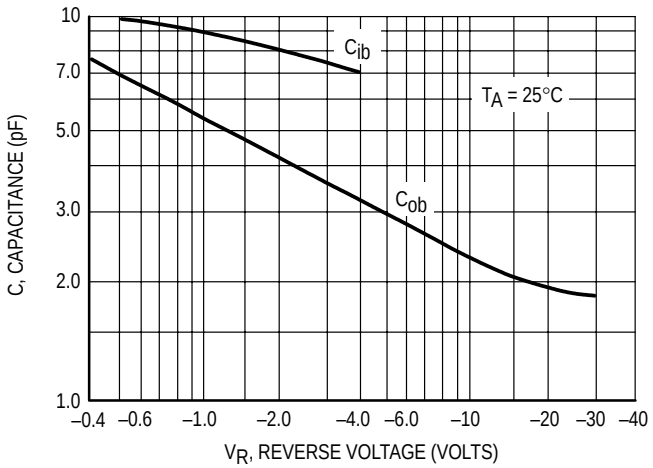


Figure 5. Capacitances

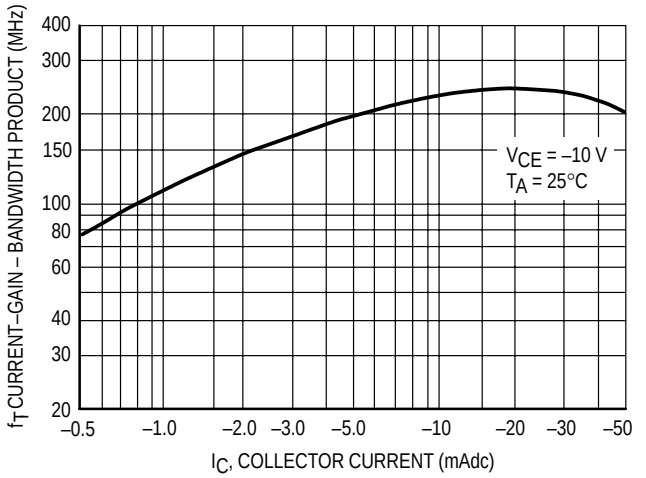


Figure 6. Current–Gain – Bandwidth Product

BC556

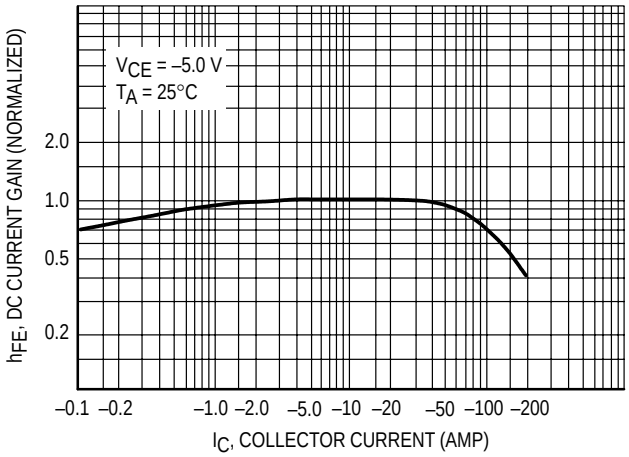


Figure 7. DC Current Gain

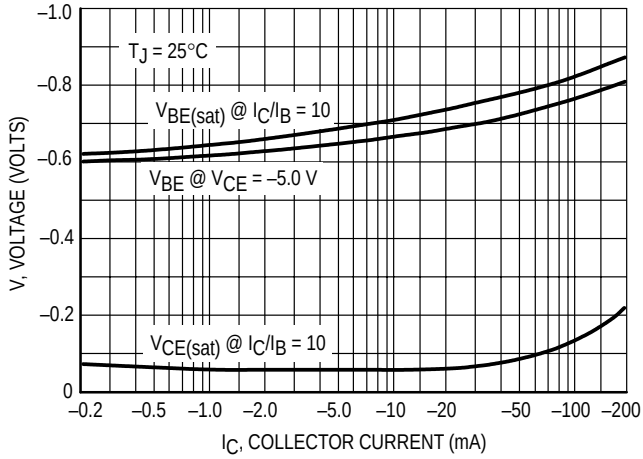


Figure 8. “On” Voltage

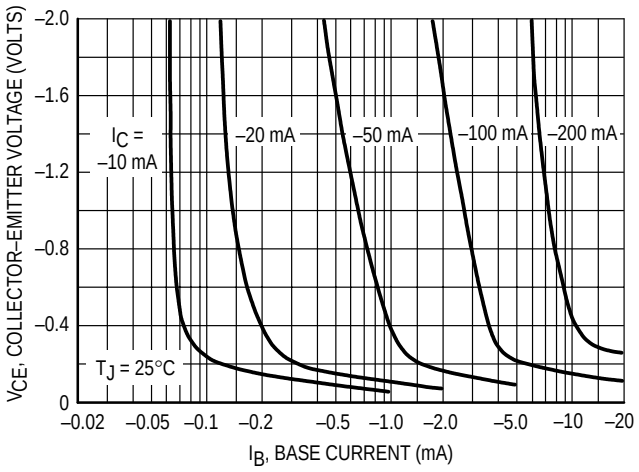


Figure 9. Collector Saturation Region

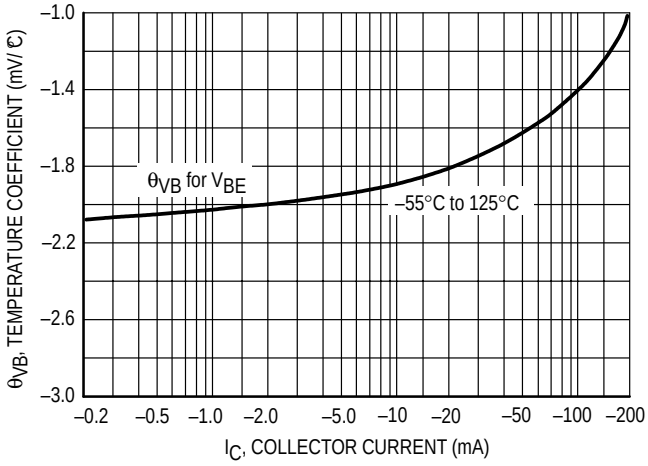


Figure 10. Base–Emitter Temperature Coefficient

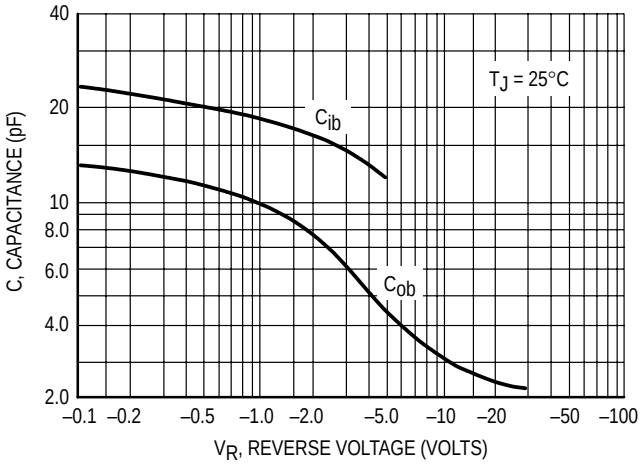


Figure 11. Capacitance

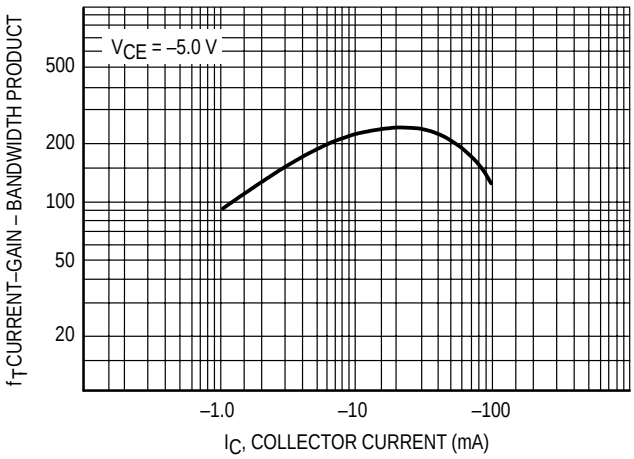


Figure 12. Current–Gain – Bandwidth Product

Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

IMPORTANT NOTICE
Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp .*** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp .*** and all the companies whose products are represented on our website, harmless against all damages.
LIFE SUPPORT
MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.
CUSTOMER AWARENESS
Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.