



Micro Commercial Components

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

### 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
- 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

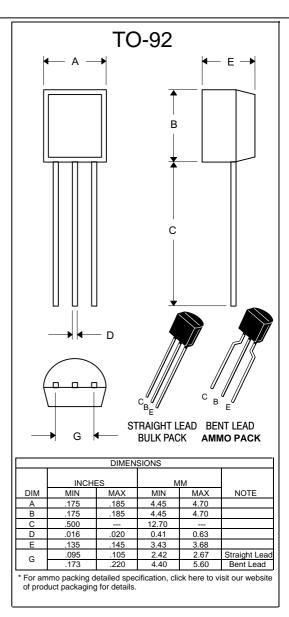
Charateristic		Symbol	Value	Unit
Collector-Emitter Voltage	BC556		-65	
	BC557	V <sub>CEO</sub>	-45	V
	BC558		-30	
Collector-Base Voltage	BC556		-80	
	BC557	V <sub>CBO</sub>	-50	V
	BC558		-30	
Emitter-Base Voltage		V <sub>EBO</sub>	-5.0	V
Collector Current(DC)		I <sub>C</sub>	-100	mA
Power Dissipation@T <sub>A</sub> =25°C		Р	625	mW
		P <sub>d</sub>	5.0	m₩/ºC
Power Dissipation@T <sub>c</sub> =25°C		р	1.5	W
		P <sub>d</sub>	12	m₩/ºC
Thermal Resistance, Junction to		$R_{\theta J A}$	200	00000
Ambient Air			200	°C/W
Thermal Resistance, Junction to		Dure	02.2	0000
Case		R <sub>θ</sub> JC	83.3	°C/W
Operating & Storage Temperature		T <sub>i</sub> , T <sub>STG</sub>	-55~150	°C

# BC556A/B/C BC557A/B/C BC558A/B/C



### **Amplifier Transistor**

### 625mW





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Parameter		Symbol	Test conditions	Min	Тур	Max	Unit
Collector-base	BC556			-80			
	BC557	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -0.1mA,I <sub>E</sub> =0	-50			V
breakdown voltage	BC558			-30			
Collector-emitter	BC556		<sub>o</sub> I <sub>c</sub> =-2mA,I <sub>B</sub> =0	-65			V
	BC557	V <sub>(BR)CEO</sub>		-45			
breakdown voltage	BC558			-30			
Emitter-base breakdown v	voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA,I <sub>C</sub> =0	-5			V
Collector cut-off current	BC556	I <sub>CBO</sub>	V <sub>CB</sub> =-70V,I <sub>E</sub> =0			-0.1	μA
	BC557		V <sub>CB</sub> =-45V,I <sub>E</sub> =0			-0.1	μA
	BC558		V <sub>CB</sub> =-25V,I <sub>E</sub> =0			-0.1	μA
Collector cut-off current	BC556	I <sub>CEO</sub>	V <sub>CE</sub> =-60V,I <sub>B</sub> =0			-0.1	μA
	BC557		V <sub>CE</sub> =-40V,I <sub>B</sub> =0			-0.1	μA
	BC558		V <sub>CE</sub> =-25V,I <sub>B</sub> =0			-0.1	μA
Emitter cut-off current		I <sub>EBO</sub>	V <sub>EB</sub> =-5V,I <sub>C</sub> =0			-0.1	μA
DC current gain		h <sub>FE</sub> *	V <sub>CE</sub> =-5V, I <sub>C</sub> =-2mA	120		800	
Collector-emitter saturation voltage V <sub>CE(sa</sub>		V	I <sub>C</sub> =-10mA,I <sub>B</sub> =-0.5mA			-0.3	V
		V CE(sat)	I <sub>C</sub> =-100mA,I <sub>B</sub> =-5mA			-0.65	V
		V	$I_{C}$ =-10mA, $I_{B}$ =-0.5mA			-0.8	V
Base-emitter saturation vo	oltage V <sub>BE(sat)</sub>		I <sub>C</sub> =-100mA,I <sub>B</sub> =-5mA			-1	V
Page emitter veltage			V <sub>CE</sub> =-5V, I <sub>C</sub> =-2mA	-0.55		-0.7	V
Base-emitter voltage V <sub>E</sub>		V <sub>BE</sub>	V <sub>BE</sub> V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA			-0.82	V
Collector output capacitar	nce	C <sub>ob</sub>	V <sub>CB</sub> =-10V,I <sub>E</sub> =0, f=1MHz			6	pF
Transition frequency	BC556	fT	Vce=-5V,Ic=-10mA, f=100MHz		150		MHz
	BC557				150		MHz
	BC558				150		MHz
		1					

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25<sup>°</sup>C unless otherwise specified)

### CLASSIFICATION of h<sub>FE</sub>

RANK	Α	В	C	
RANGE	120-220	180-460	420-800	

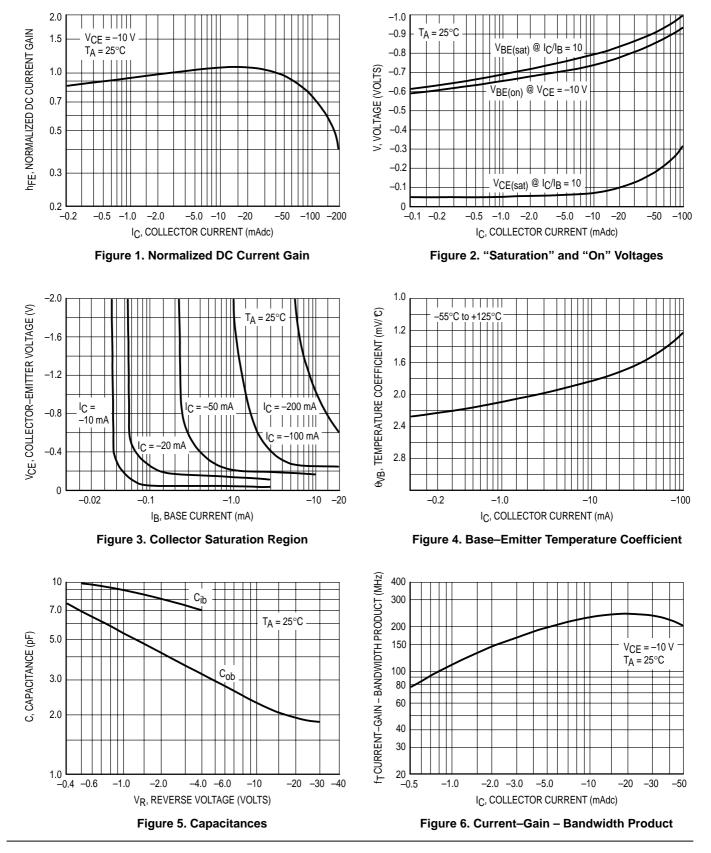


## BC556A thru BC558C



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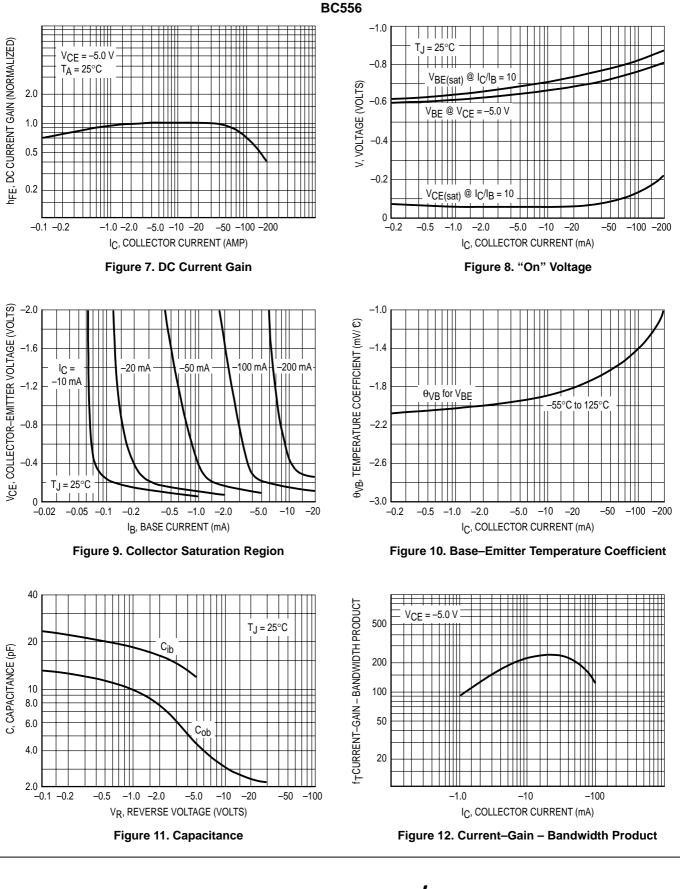
#### BC557/BC558



## BC556A thru BC558C



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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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