

Pb

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

Phone: (818) 701-4933 Fax: (818) 701-4939 BC639-10 BC639-16

## **Features**

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Marking: BC639

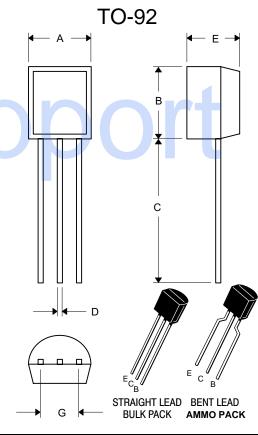
# **Maximum Ratings**

Symbol	Rating	Value	Unit
$V_{CEO}$	Collector-Emitter Voltage	80	V
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
Ic	Collector Current	1.0	Α
Pc	Collector Power Dissipation	1	W
TJ	Junction Temperature	-55 to +150	$^{\circ}\mathbb{C}$
T <sub>STG</sub>	Storage Temperature	-55 to +150	$^{\circ}\mathbb{C}$

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Тур	Max	Units
OFF CHAF	ACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =1mAdc,I <sub>B</sub> =0)	80			Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I <sub>C</sub> =100 µ Adc,I <sub>E</sub> =0)	100			Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (I <sub>E</sub> =100 µ Adc,I <sub>C</sub> =0)	5.0			Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =30Vdc, I <sub>E</sub> =0)			0.1	μ Adc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =5.0Vdc, I <sub>C</sub> =0)			0.1	μ Adc
h <sub>FE</sub>	$\begin{array}{lll} DC \ Current \ Gain \\ (V_{CE}=2Vdc, \ l_{C}=5mAdc) \\ (V_{CE}=2Vdc, \ l_{C}=150mAdc) \\ (V_{CE}=2Vdc, \ l_{C}=150mAdc) \\ (V_{CE}=2Vdc, \ l_{C}=500mAdc) \\ \end{array} BC639-16$	25 63 100 25	  	160 250	  
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =500mAdc,I <sub>B</sub> =50mAdc)	-		0.5	Vdc
$V_{BE}$	Base-Emitter Voltage (I <sub>C</sub> =500mAdc, V <sub>CE</sub> =2Vdc)			1.0	Vdc
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =5.0Vdc, I <sub>C</sub> =50mAdc, f=100MHz)	100			MHz

# NPN Epitaxial Silicon Transistors



DIMENSIONS						
	INCHE	ΞS	ММ			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.175	.185	4.45	4.70		
В	.175	.185	4.45	4.70		
С	.500		12.70			
D	.016	.020	0.41	0.63		
Е	.135	.145	3.43	3.68		
G	.095	.105	2.42	2.67	Straight Lead	
G	.173	.220	4.40	5.60	Bent Lead	

<sup>\*</sup> For ammo packing detailed specification, click here to visit our website of product packaging for details.



#### **Micro Commercial Components**

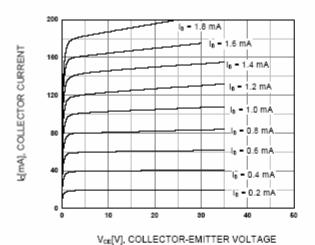


Figure 1. Static Characteristic

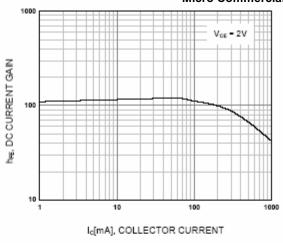


Figure 2. DC current Gain

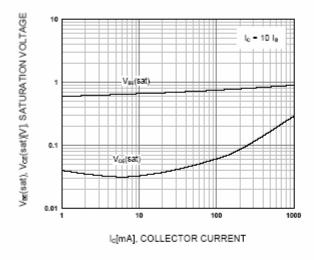


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

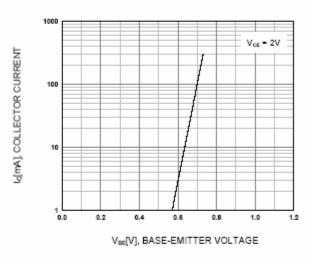


Figure 4. Base-Emitter On Voltage

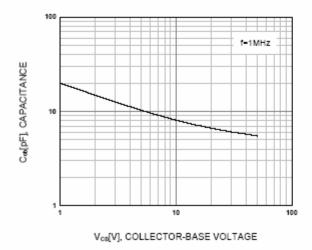


Figure 5. Collector Output Capacitance

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Revision: D 2 of 3 2013/01/01



## 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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