



Micro Commercial Components



Micro Commercial Components  
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## BC337-16/25/40 BC338-16/25/40

### Features

- Capable of 0.625Watts of Power Dissipation.
- Collector-current 0.8A
- Collector-base Voltage :  $V_{CBO}=50V$ (BC337) ,  $V_{CBO}=30V$ (BC338)
- 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

### Maximum Ratings

- Operating temperature :  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Storage temperature :  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$

### Electrical Characteristics @ $25^{\circ}\text{C}$ Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C=10\text{mA}$ , $I_B=0$ )	BC337 45 BC338 25	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=100\mu\text{A}$ , $I_E=0$ )	BC337 50 BC338 30	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ( $I_E=10\mu\text{A}$ , $I_C=0$ )	5.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=45\text{Vdc}$ , $I_E=0$ ) ( $V_{CB}=25\text{Vdc}$ , $I_E=0$ )	BC337 --- BC338 ---	0.1 0.1	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff Current ( $V_{CE}=40\text{Vdc}$ , $I_B=0$ ) ( $V_{CE}=20\text{Vdc}$ , $I_B=0$ )	BC337 --- BC338 ---	0.2 0.2	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=4.0\text{Vdc}$ , $I_C=0$ )	---	0.1	$\mu\text{A}$

#### ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ( $I_C=300\text{mA}$ , $V_{CE}=1.0\text{Vdc}$ )	60	---	--
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=500\text{mA}$ , $I_B=50\text{mA}$ )	---	0.7	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=500\text{mA}$ , $I_B=50\text{mA}$ )	---	1.2	Vdc

#### SMALL SIGNAL CHARACTERISTICS

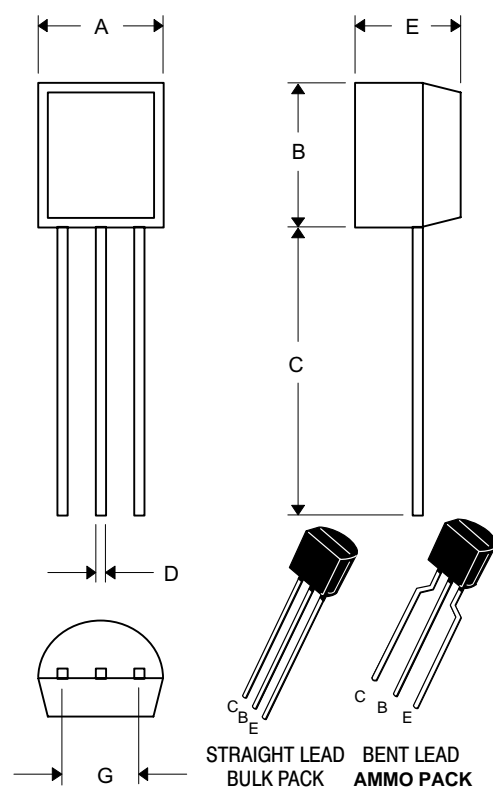
$f_T$	Current-Gain-Bandwidth Product ( $V_{CE}=5.0\text{V}$ , $f=100\text{MHz}$ , $I_C=10\text{mA}$ )	210	---	MHz
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#### hFE CLASSIFICATION

Classification	16	25	40
$h_{FE(2)}$ ( $I_C=100\text{mA}$ , $V_{CE}=1.0\text{Vdc}$ )	100~250	160~400	250~630
Marking Code	A 011	B 011	C 011

## NPN Plastic-Encapsulate Transistors

### TO-92



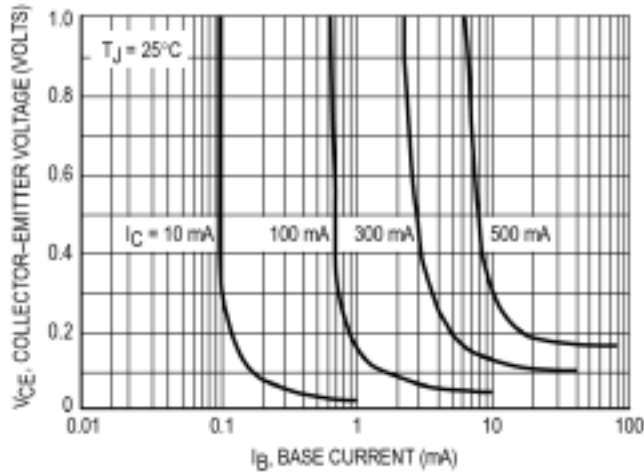
#### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.175	.185	4.45	4.70	
B	.175	.185	4.45	4.70	
C	.500	---	12.70	---	
D	.016	.020	0.41	0.63	
E	.135	.145	3.43	3.68	
G	.095	.105	2.42	2.67	Straight Lead
	.173	.220	4.40	5.60	Bent Lead

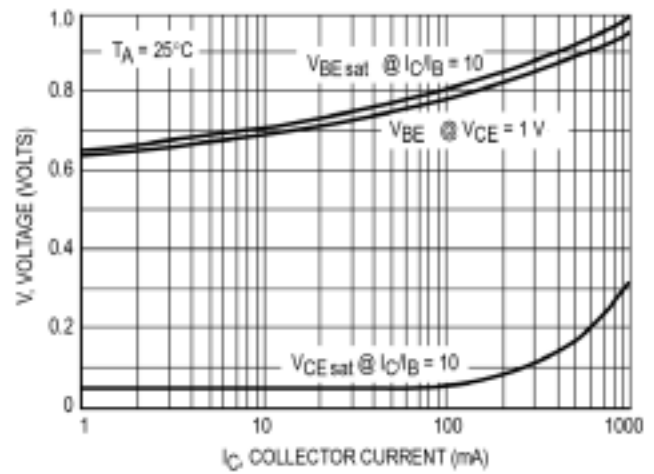
\* For ammo packing detailed specification, click here to visit our website of product packaging for details.

## Typical Characteristics

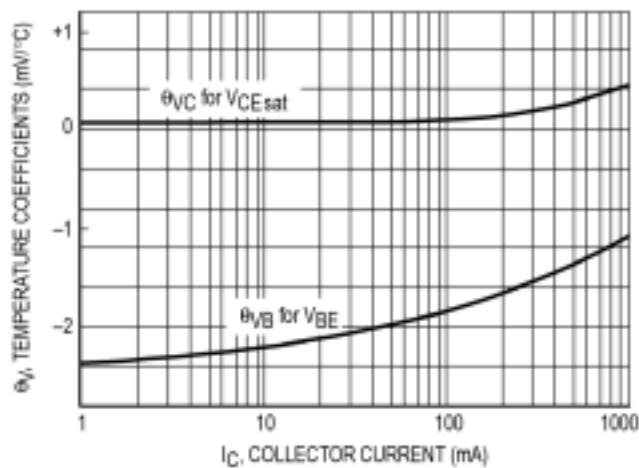
**BC337**



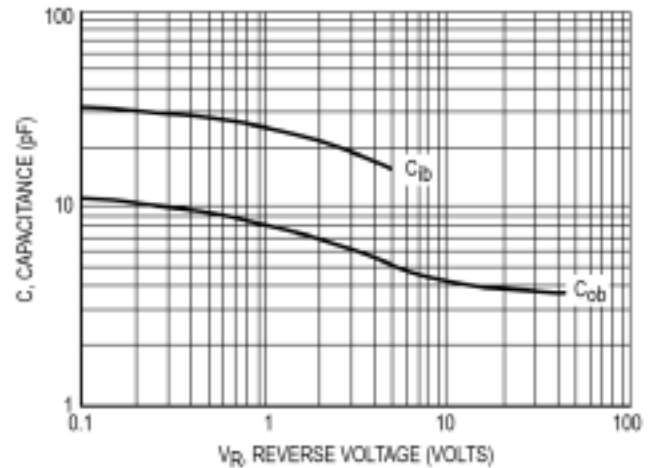
**Saturation Region**



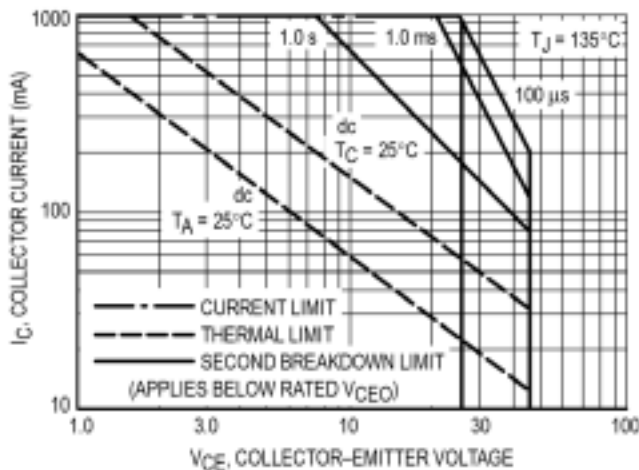
**"On" Voltages**



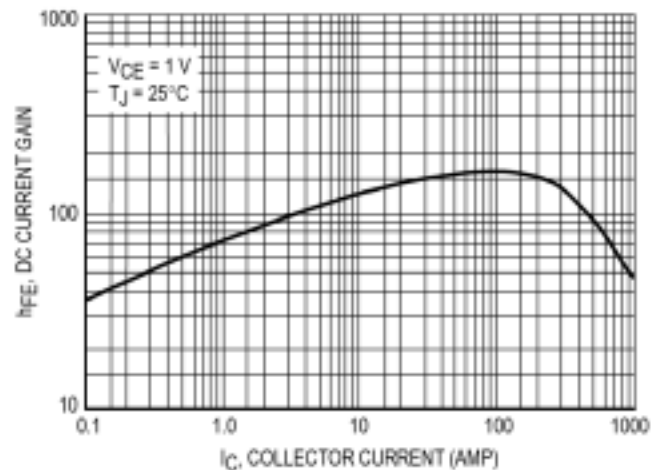
**Temperature Coefficients**



**Capacitances**



**Active Region — Safe Operating Area**



**DC Current Gain**

## Ordering Information :

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

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