



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
- Moisture Sensitivity Level 1

## Maximum Ratings

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

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

Symbol	Parameter	Min	Max	Units
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#### OFF CHARACTERISTICS

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

#### ON CHARACTERISTICS

$h_{FE(2)}$	DC Current Gain ( $I_C=300mA$ , $V_{CE}=1.0V$ )	60	---	--
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=500mA$ , $I_B=50mA$ )	---	0.7	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=500mA$ , $I_B=50mA$ )	---	1.2	Vdc

#### SMALL SIGNAL CHARACTERISTICS

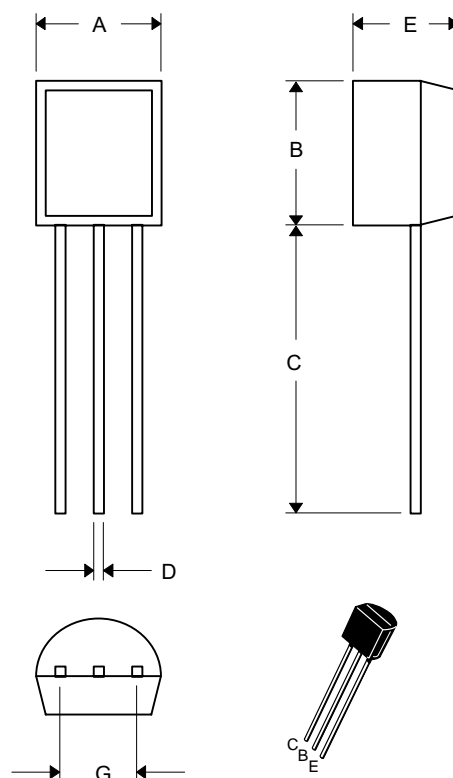
$f_T$	Current-Gain-Bandwidth Product ( $V_{CE}=5.0V$ , $f=100MHz$ , $I_C=10mA$ )	210	---	MHz
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#### hFE CLASSIFICATION

Classification	16	25	40
$h_{FE(1)}$	100~250	160~400	250~630
Marking Code	A 011	B 011	C 011

## NPN Plastic-Encapsulate Transistors

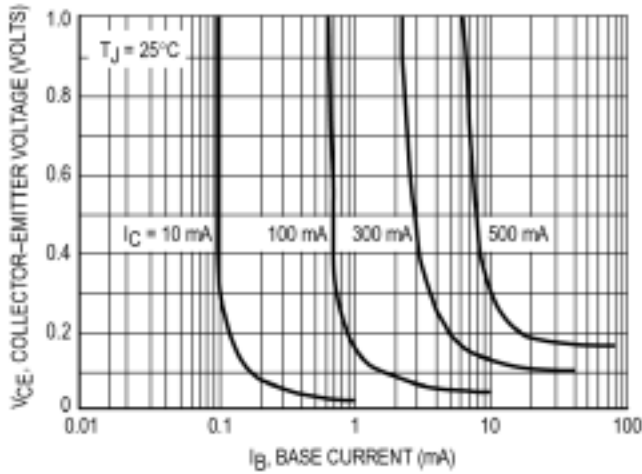
TO-92



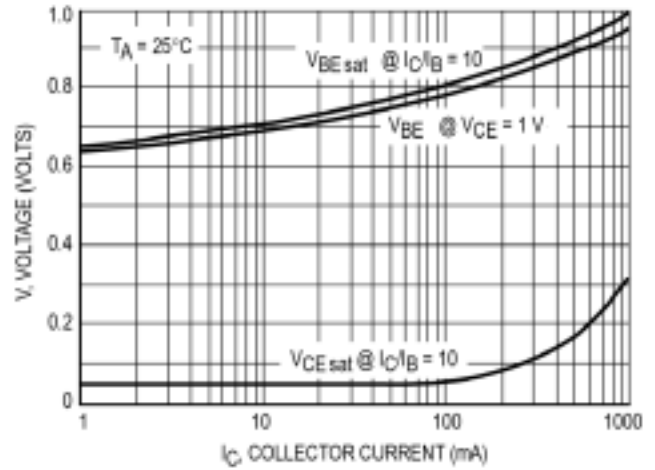
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.096	.104	2.44	2.64	

Typical Characteristics

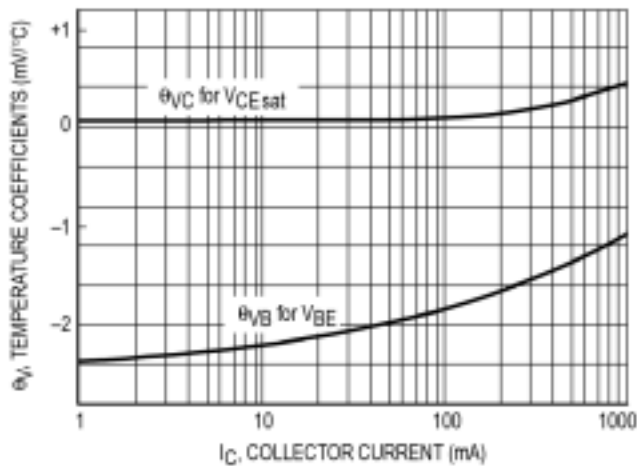
BC337



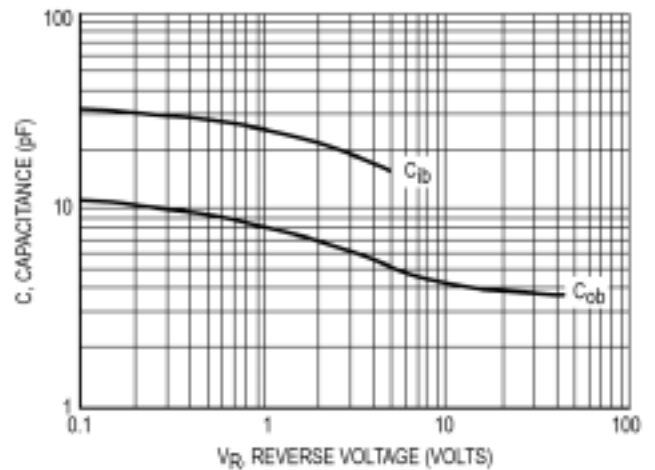
Saturation Region



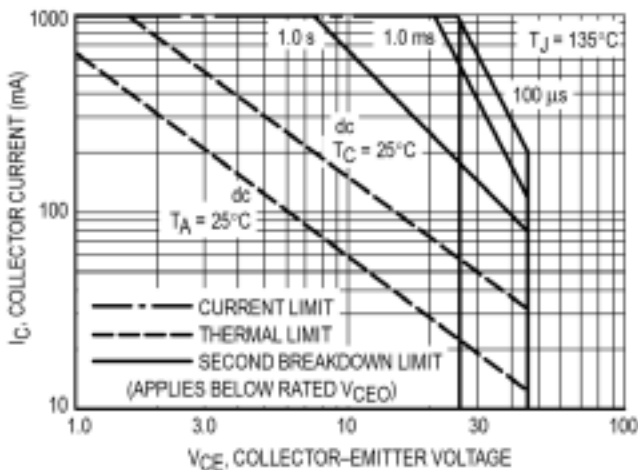
"On" Voltages



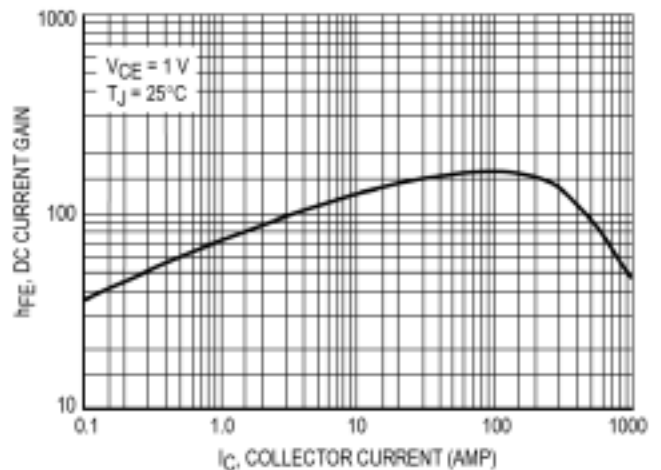
Temperature Coefficients



Capacitances



Active Region — Safe Operating Area



DC Current Gain



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Ordering Information :

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

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