



Micro Commercial Components



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BC337-16/25/40 BC338-16/25/40

Features

- Halogen free available upon request by adding suffix "-HF"
- 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°C to $+150^{\circ}\text{C}$
- Storage temperature : -55°C to $+150^{\circ}\text{C}$

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

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

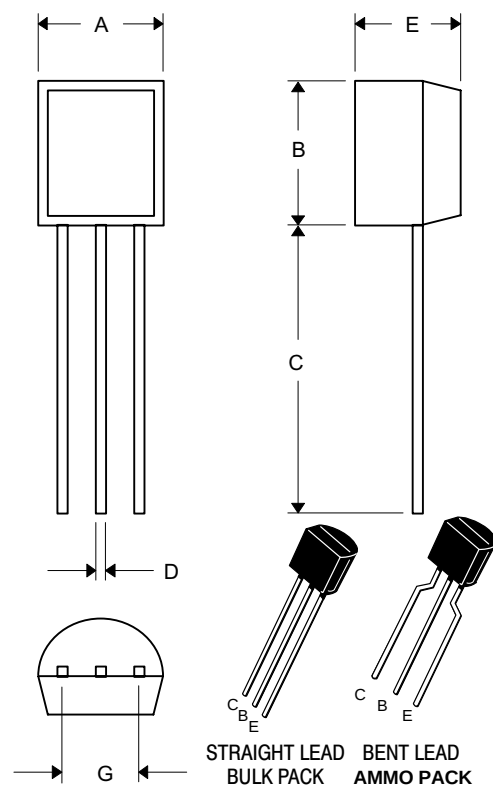
f_T	Current-Gain-Bandwidth Product ($V_{CE}=5.0\text{V}$, $f=100\text{MHz}$, $I_C=10\text{mA}$)	210	---	MHz
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hFE CLASSIFICATION

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



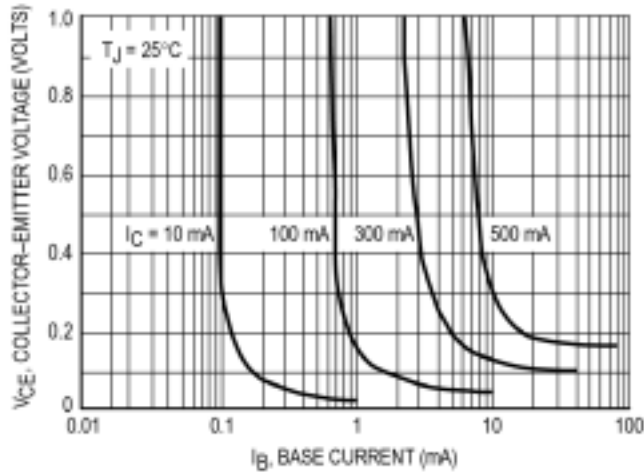
DIMENSIONS

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

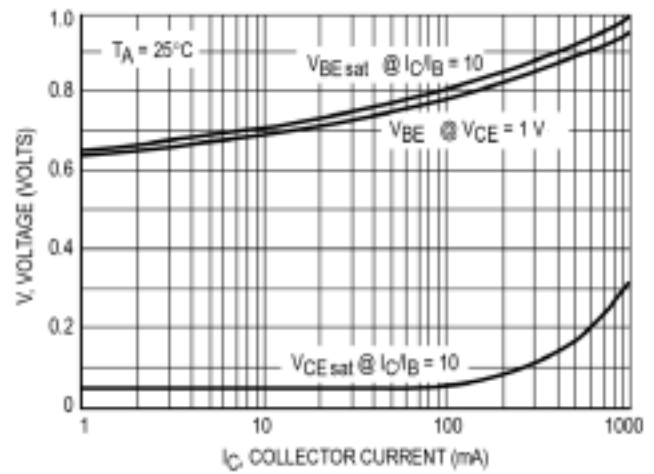
* For ammo packing detailed specification, click here to visit our website of product packaging for details.

Typical Characteristics

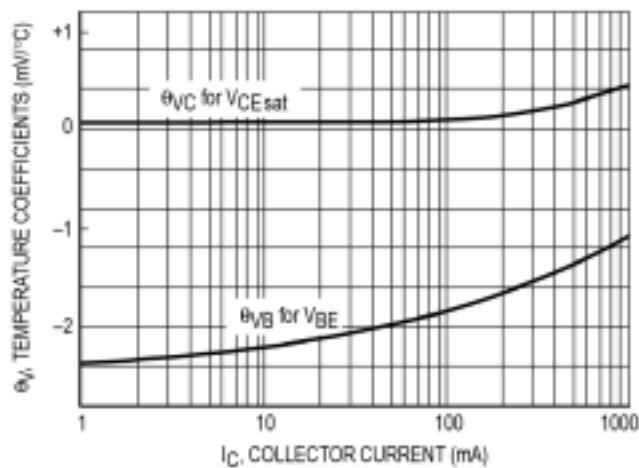
BC337



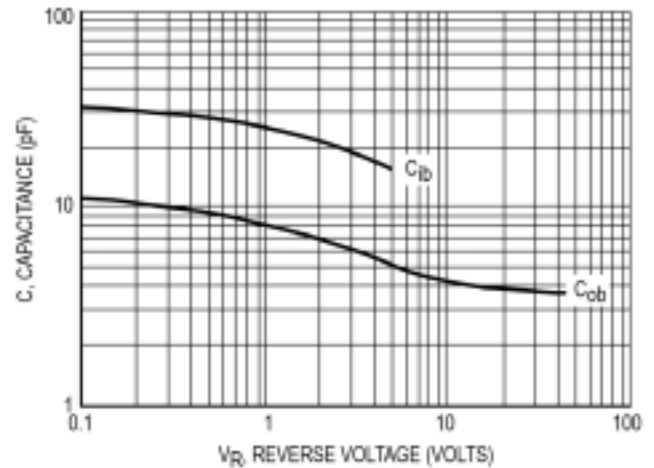
Saturation Region



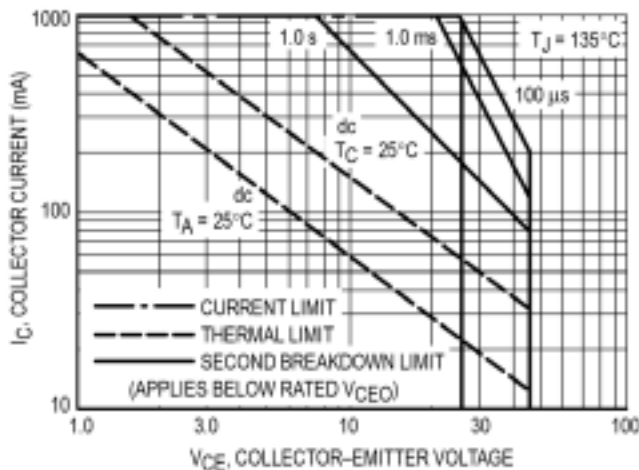
"On" Voltages



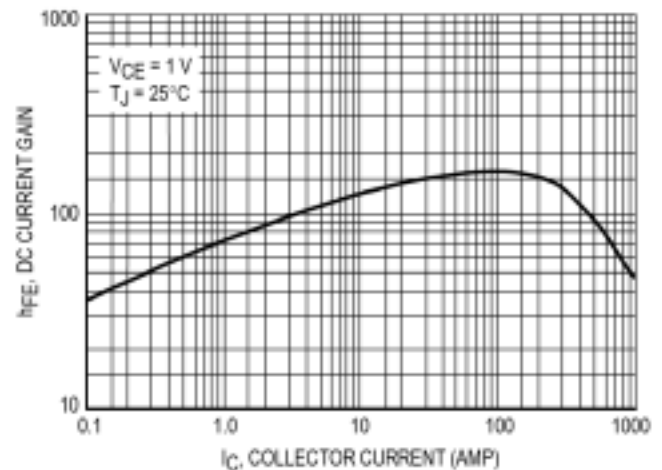
Temperature Coefficients



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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-AP-HF

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