

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 @ $25^{\circ}C$ 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	μA
	BC337	---	0.1	
	BC338	---	0.1	
I_{CEO}	Collector Cutoff Current ($V_{CE}=40V$, $I_B=0$)		0.2	μA
	BC337	---	0.2	
	BC338	---	0.2	
I_{EBO}	Emitter Cutoff Current ($V_{EB}=4.0V$, $I_C=0$)	---	0.1	μA

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

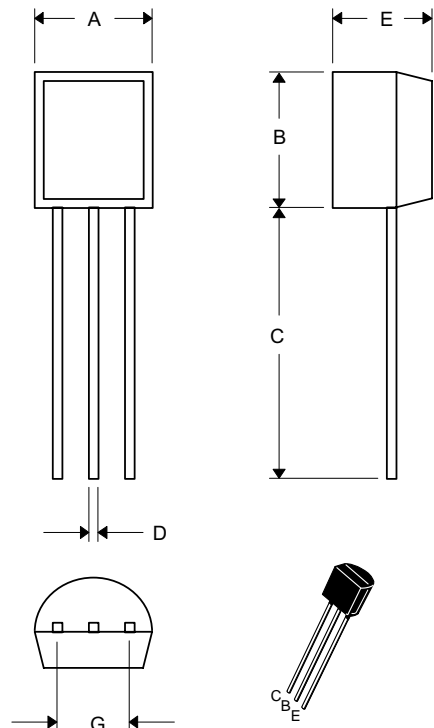
f_T	Current-Gain-Bandwidth Product ($V_{CE}=5.0V$, $f=100MHz$, $I_C=10mA$)	210	---	MHz
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hFE CLASSIFICATION

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



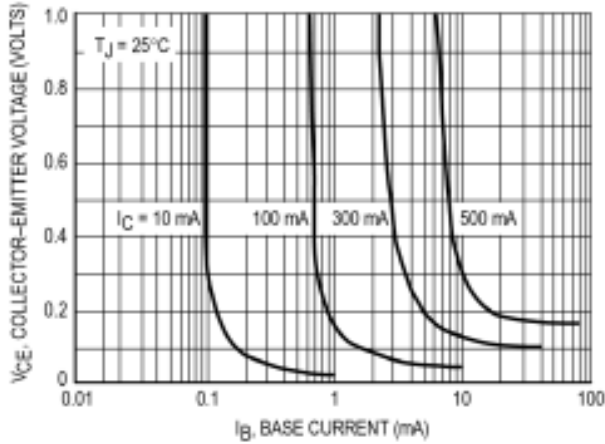
DIMENSIONS

DIM	INCHES		MM		NOTE
	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	

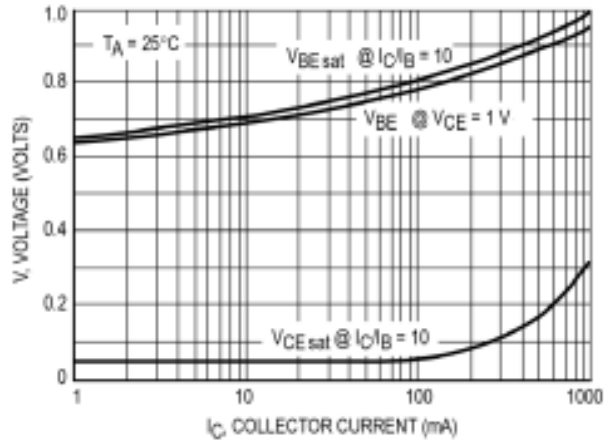
www.mccsemi.com

Typical Characteristics

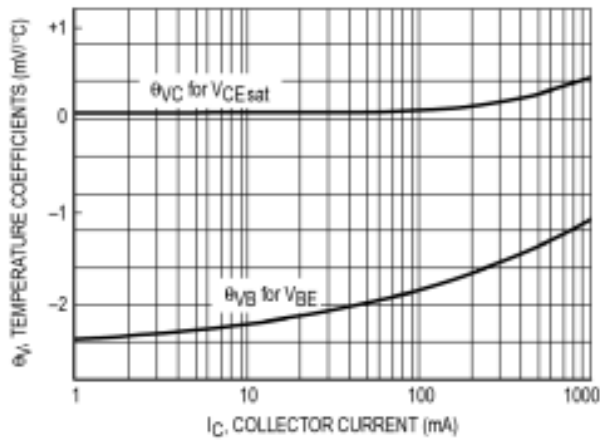
BC337



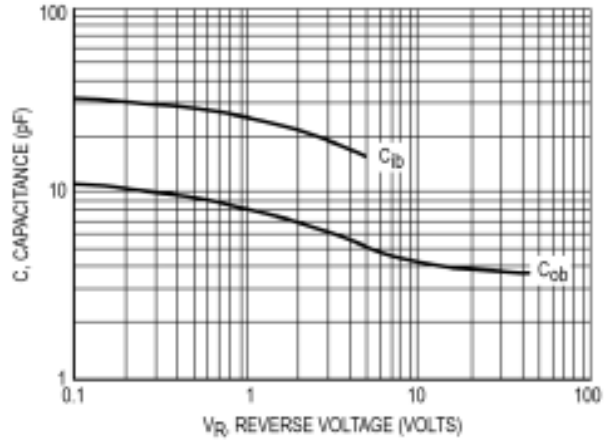
Saturation Region



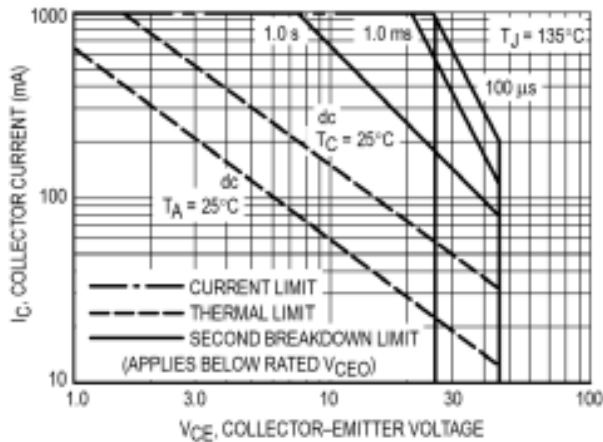
"On" Voltages



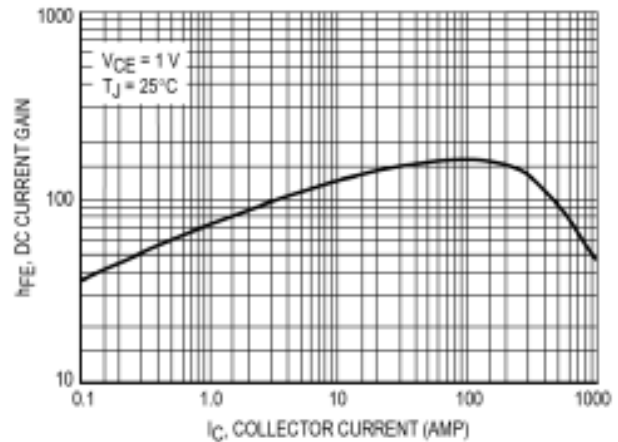
Temperature Coefficients



Capacitances



Active Region — Safe Operating Area



DC Current Gain



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Ordering Information :

Device	Packing
Part Number-AP	Ammo Packing: 2Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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