



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)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

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 ($I_C=10\text{mA}$, $I_B=0$)	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	μA
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	μA
I_{EBO}	Emitter Cutoff Current ($V_{EB}=4.0\text{Vdc}$, $I_C=0$)	---	0.1	μA

ON CHARACTERISTICS

$h_{FE(2)}$	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

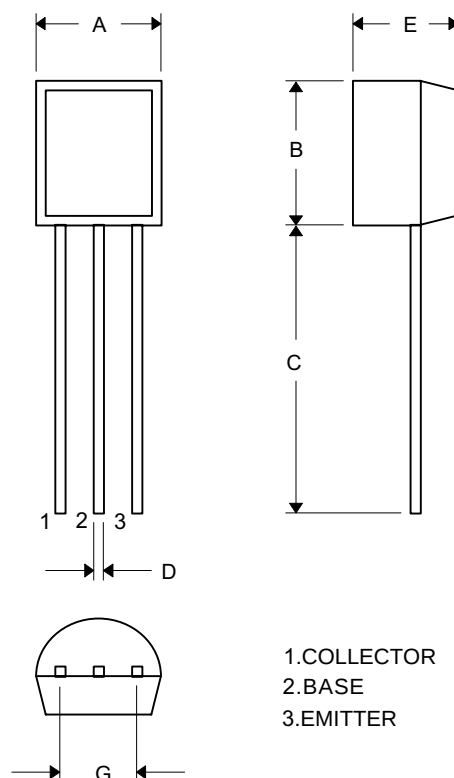
f_T	Current-Gain-Bandwidth Product ($V_{CE}=5.0\text{V}$, $f=100\text{MHz}$, $I_C=10\text{mA}$)	210	---	MHz
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hFE CLASSIFICATION

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

NPN Plastic-Encapsulate Transistors

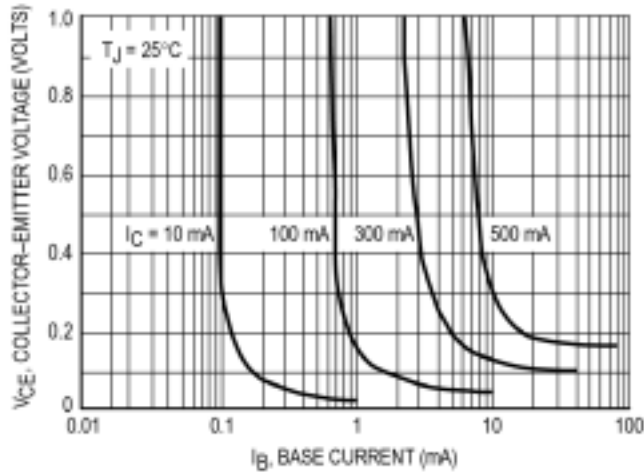
TO-92



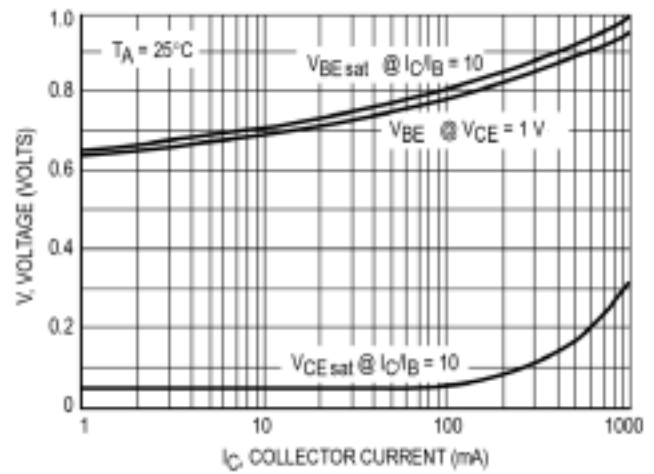
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.170	.190	4.33	4.83	
B	.170	.190	4.30	4.83	
C	.550	.590	13.97	14.97	
D	.010	.020	0.36	0.56	
E	.130	.160	3.30	3.96	
G	.010	.104	2.44	2.64	

Typical Characteristics

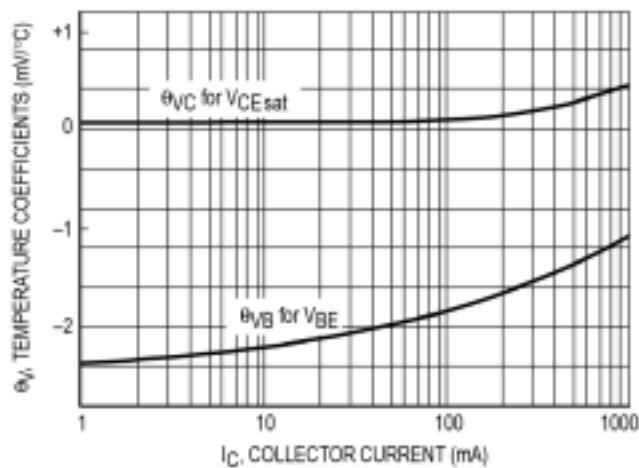
BC337



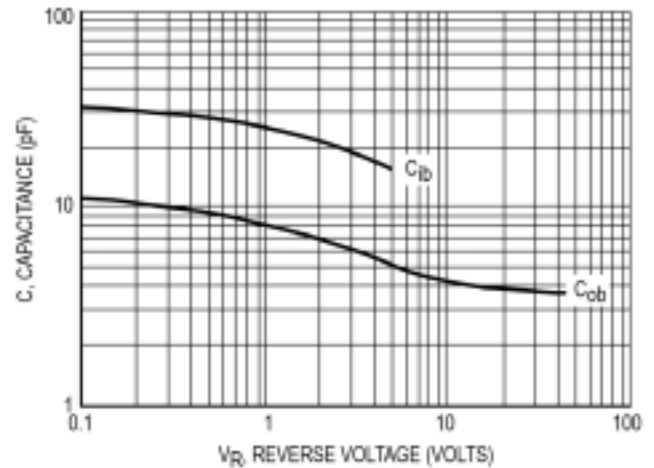
Saturation Region



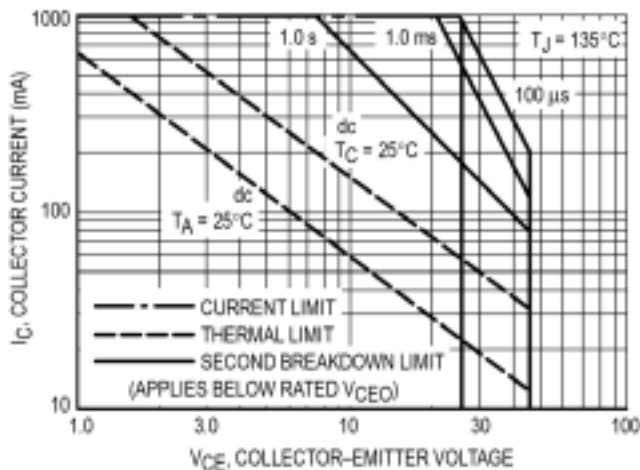
"On" Voltages



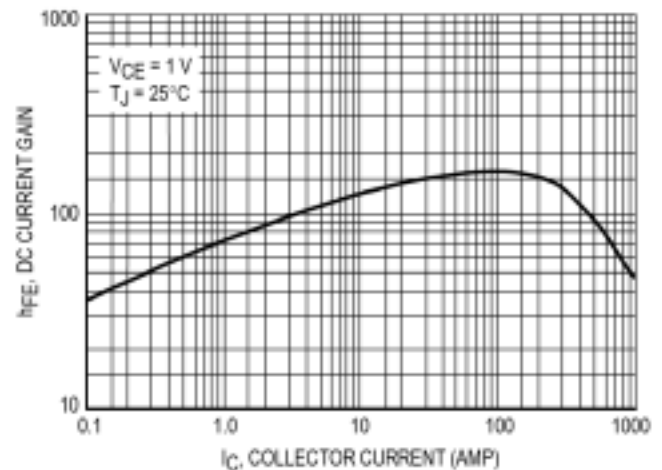
Temperature Coefficients



Capacitances



Active Region — Safe Operating Area



DC Current Gain

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