



Features

- Power dissipation

Package Marking and Ordering Information

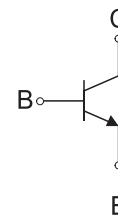
Product ID	Pack	Marking	Qty(PCS)
GES5816	TO-92	BC337	1000

1. EMITTER

2. BASE

3. COLLECTOR

TO-92



Maximum Ratings (Ta=25°C unless otherwise noted)

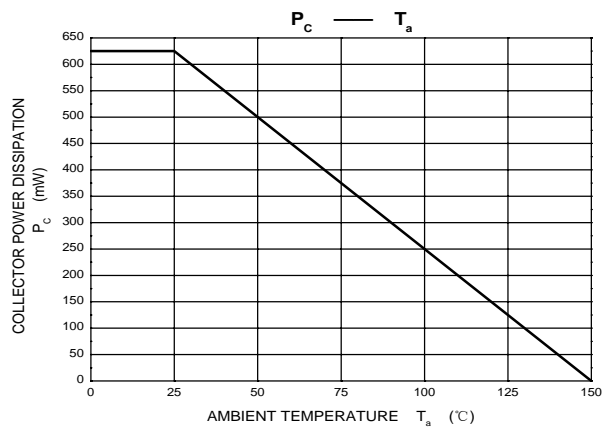
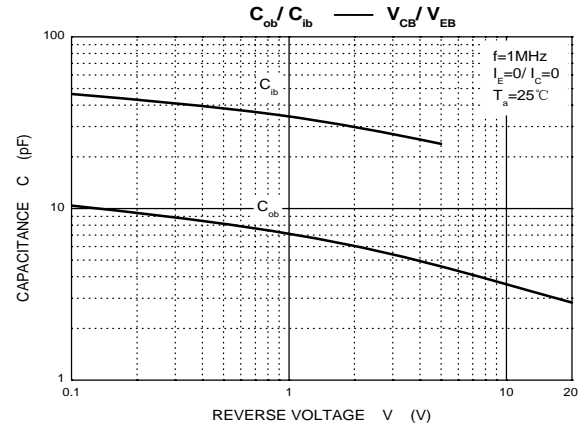
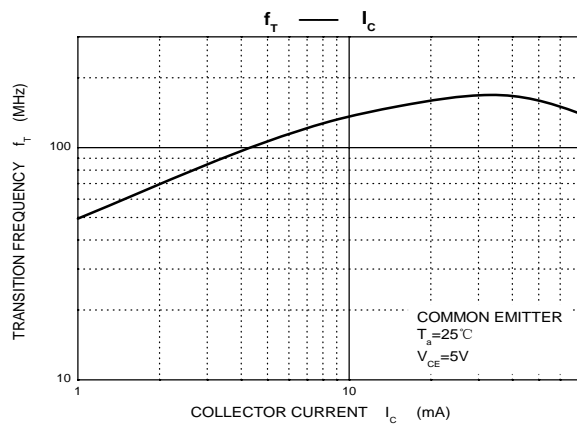
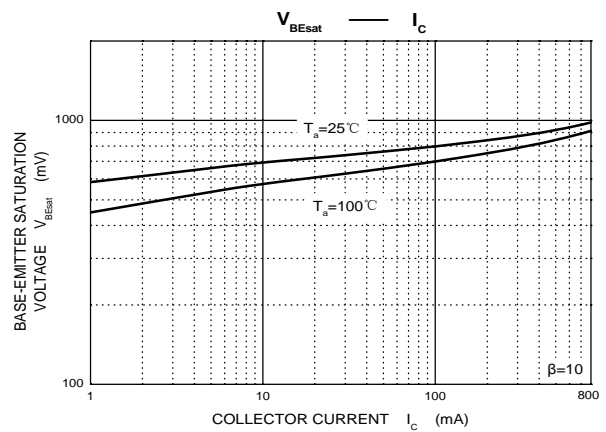
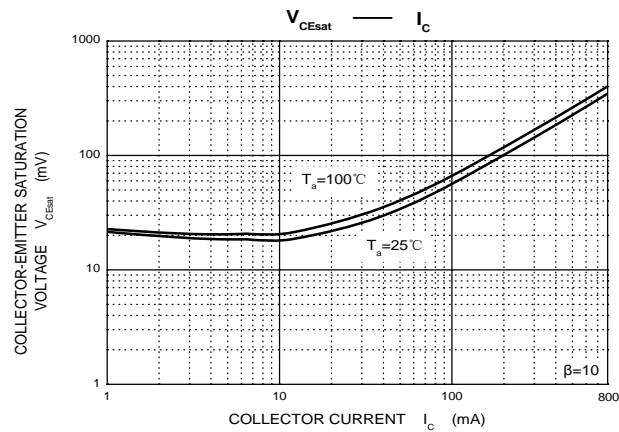
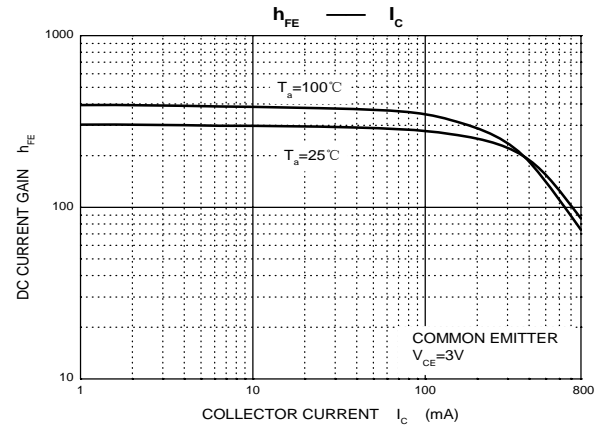
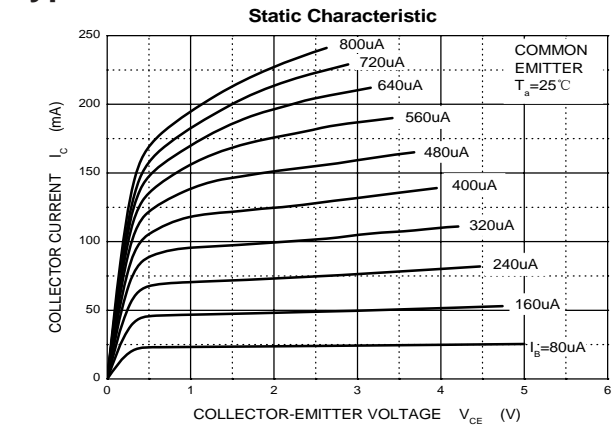
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	800	mA
P_D	Total Device Dissipation	625	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C = 100\mu A, I_E = 0$	50			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = 10mA, I_B = 0$	45			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 45V, I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 40V, I_B = 0$			0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 4V, I_C = 0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 1V, I_C = 100mA$	160		400	
	$h_{FE(2)}$	$V_{CE} = 1V, I_C = 300mA$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$			0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 50mA$			1.2	V
Base-emitter voltage	V_{BE}	$V_{CE} = 1V, I_C = 300mA$			1.2	V
Transition frequency	f_T	$V_{CE} = 5V, I_C = 10mA$ $f = 100MHz$	210			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$ $f = 1MHz$		15		pF

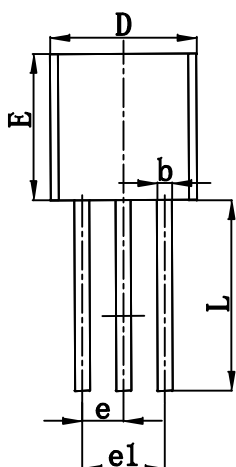
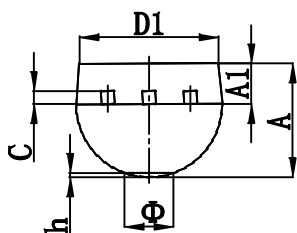


Typical Characteristics



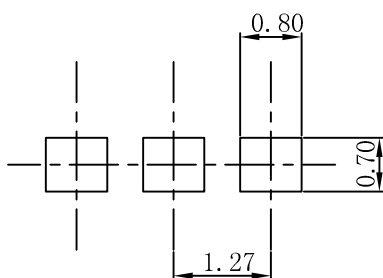


TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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