



## Features

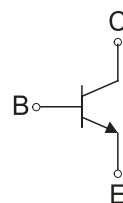
- High Current
- Complement To BD136/BD138/BD140

## Package Marking and Ordering Information

Product ID	Pack	Packing Method	Qty(PCS)
BD135G/BD137G /BD139G	TO-126	Bulk	200



TO-126



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

Symbol	Parameter		Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	BD135G	45	V
		BD137G	60	
		BD139G	80	
V <sub>CEO</sub>	Collector-Emitter Voltage	BD135G	45	V
		BD137G	60	
		BD139G	80	
V <sub>EBO</sub>	Emitter-Base Voltage		6	V
I <sub>C</sub>	Collector Current -Continuous		1.5	A
P <sub>C</sub>	Collector Dissipation		1	W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range		-55~+150	℃



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

Parameter	symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.1mA, I_E=0$ BD135G BD137G BD139G	45 60 80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.03A, I_B=0$ BD135G BD137G BD139G	45 60 80		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=100V, I_E=0$		0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=100V, I_B=0$		0.5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V, I_C=0$		0.1	$\mu A$
DC current gain	$h_{FE1}$ $h_{FE2}$ $h_{FE3}$	$V_{CE}=2V, I_C=0.15A$ $V_{CE}=2V, I_C=5mA$ $V_{CE}=2V, I_C=0.5A$	40 25 25	300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=1.5A, I_B=0.15A$		0.5	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=100mA, f=10MHz$	50		MHz

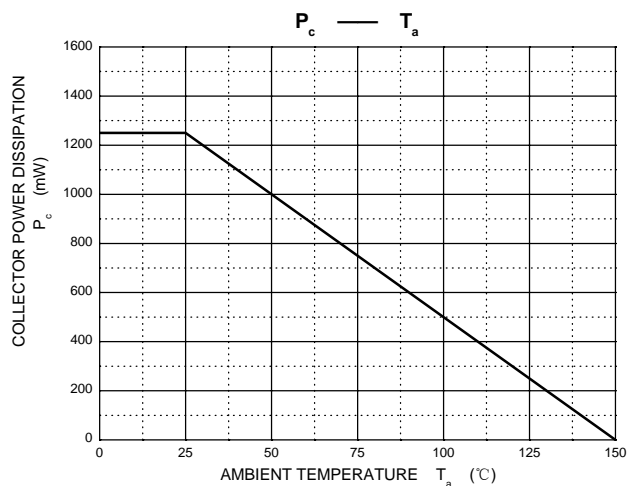
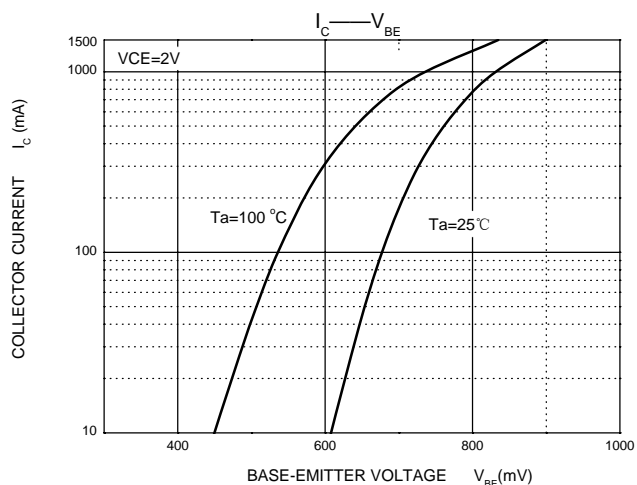
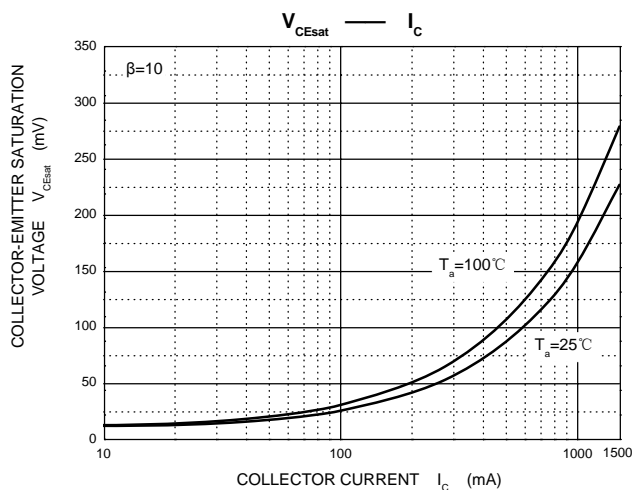
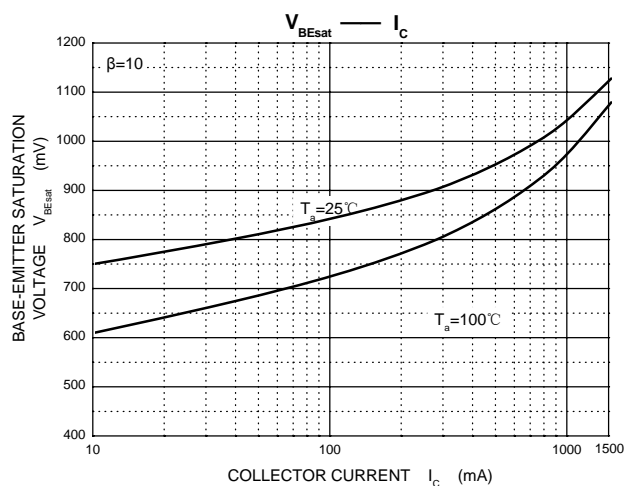
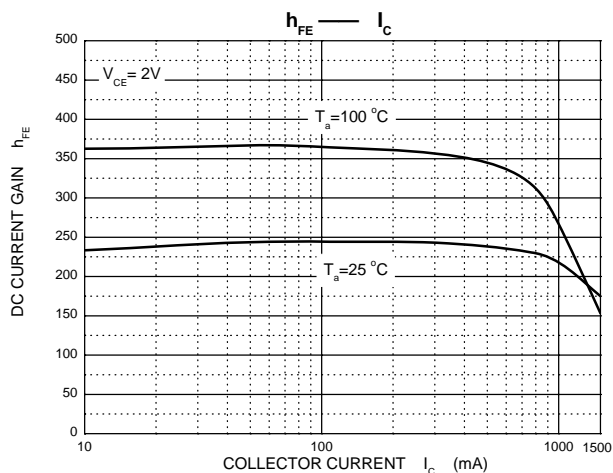
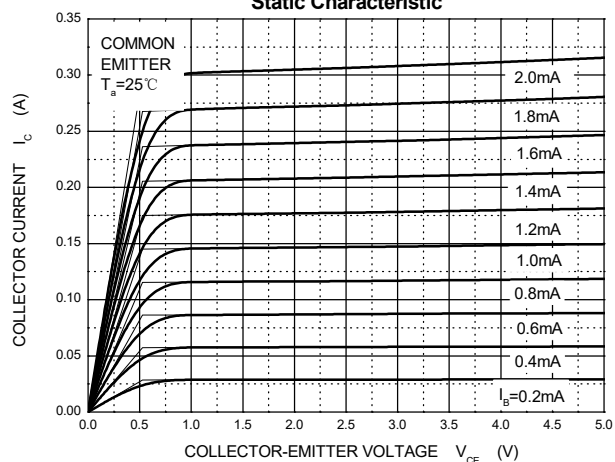
### Classification Of $h_{FE}$

Rank	BD135G/BD137G/BD139G	BD135G-10/BD137G-10 /BD139G-10	BD135G-16/BD137G-16 /BD139G-16
Range	40-100	63-160	100-300



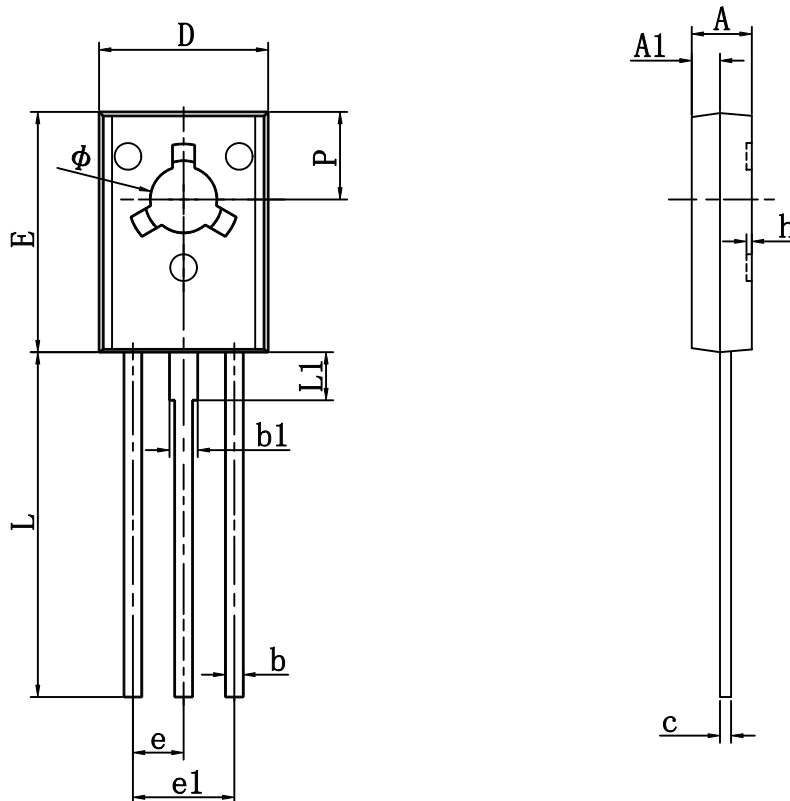
## Typical Characteristics

Static Characteristic





## TO-18 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.500	2.900	0.098	0.114
A1	1.100	1.500	0.043	0.059
b	0.660	0.860	0.026	0.034
b1	1.170	1.370	0.046	0.054
c	0.450	0.600	0.018	0.024
D	7.400	7.800	0.291	0.307
E	10.600	11.000	0.417	0.433
e	2.290 TYP		0.090 TYP	
e1	4.480	4.680	0.176	0.184
h	0.000	0.300	0.000	0.012
L	15.300	15.700	0.602	0.618
L1	2.100	2.300	0.083	0.091
P	3.900	4.100	0.154	0.161
Φ	3.000	3.200	0.118	0.126



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