



Features

- Complement to BD237

Package Marking and Ordering Information

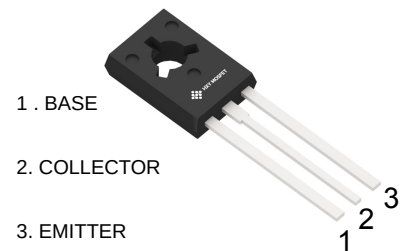
Product ID	Pack	Packing Method	Qty(PCS)
BD238	TO-18	Bulk	200

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

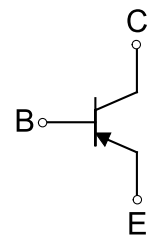
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-1.5	A
P_c	Collector Dissipation	1	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -1mA, I_E = 0$	-100		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-100		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1mA, I_C = 0$	-6		V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$		-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = -60V, I_B = 0$		-0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6V, I_C = 0$		-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -2V, I_C = -0.1A$	150	250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2A, I_B = -0.2A$		0.5	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -0.1A$ $f = 10MHz$	50		MHz

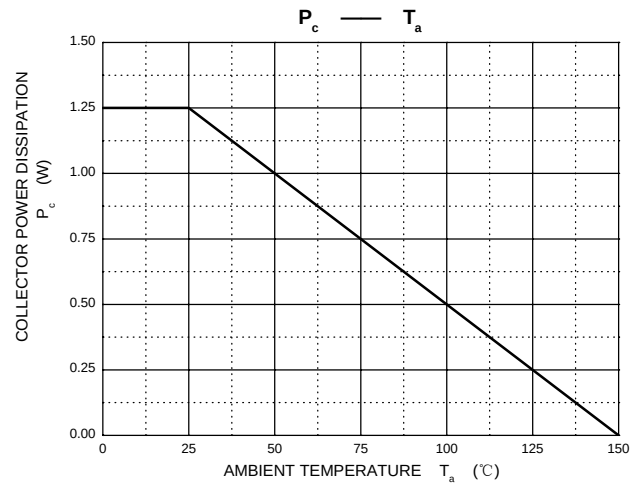
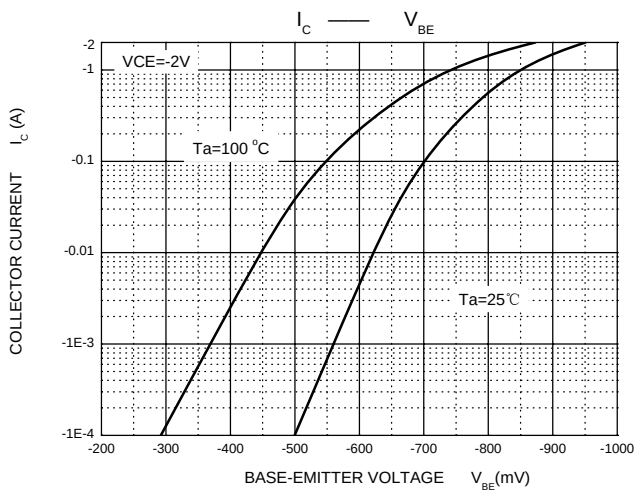
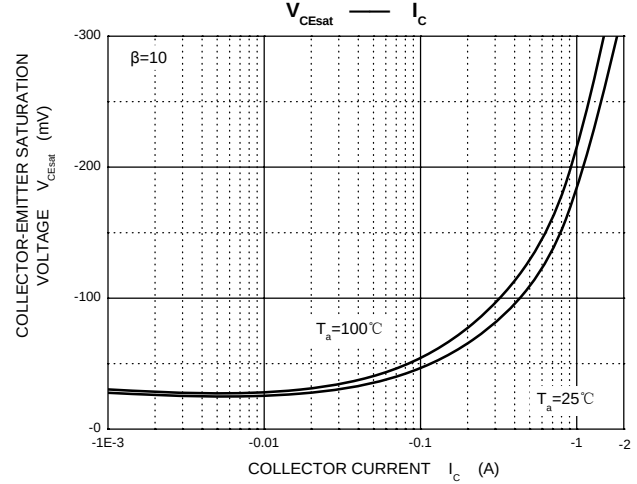
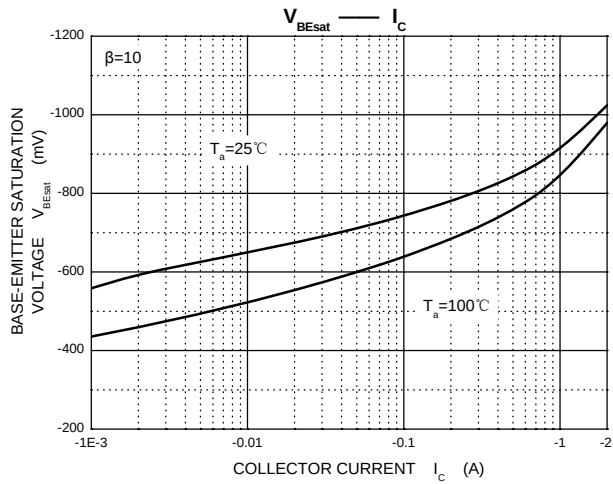
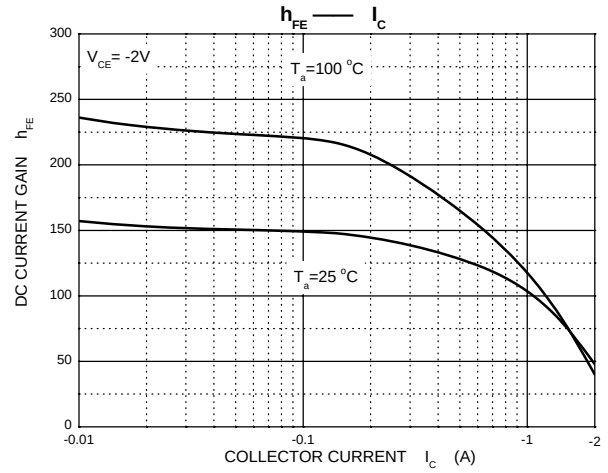
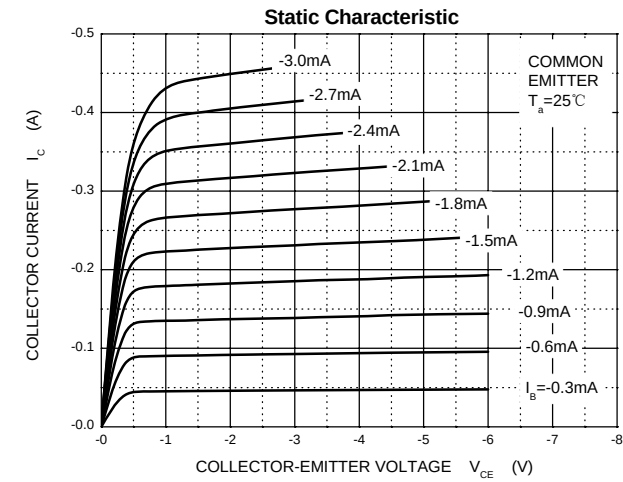


TO-18



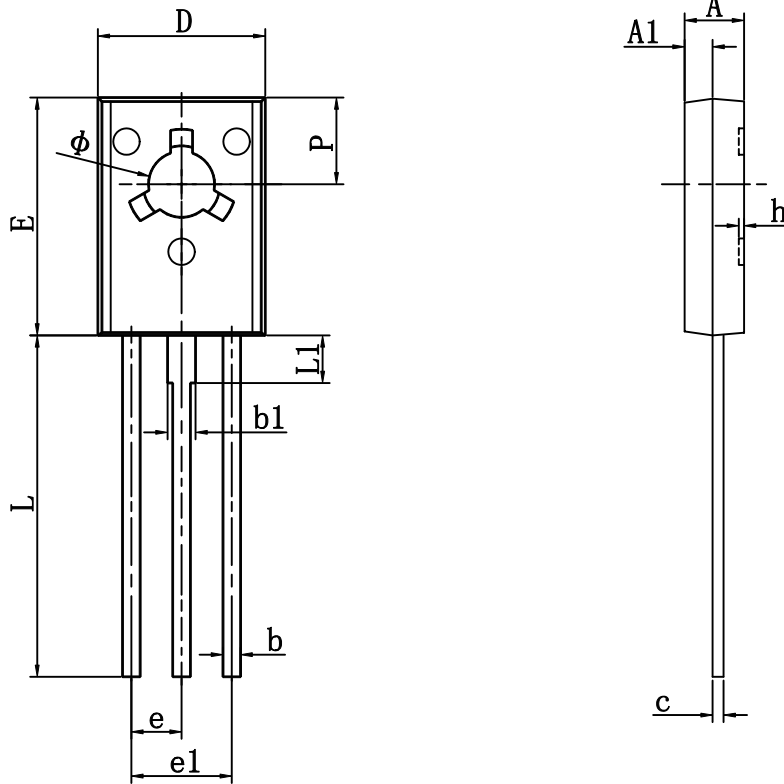


Typical Characteristics





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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