

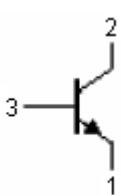
Silicon NPN Power Transistor



Application:

For medium power linear and switching applications

Fig. 1 Simplified Outline (TO-126) and Symbol



Pinning

Pin	Description
1	Emitter
2	Collector; connected to mounting base
3	Base

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Symbol	Parameter	Conditions	Value	Unit
V_{CBO}	Collector - base voltage	Open emitter	100	V
V_{CEO}	Collector - emitter voltage	Open base	80	V
V_{EBO}	Emitter - base voltage	Open collector	5	V
I_C	Collector current (DC)	-	2	A
I_{CM}	Collector current - peak	-	6	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	25	W
T_j	Junction temperature	-	150	$^\circ\text{C}$
T_{stg}	Storage temperature	-	-65 to 150	$^\circ\text{C}$

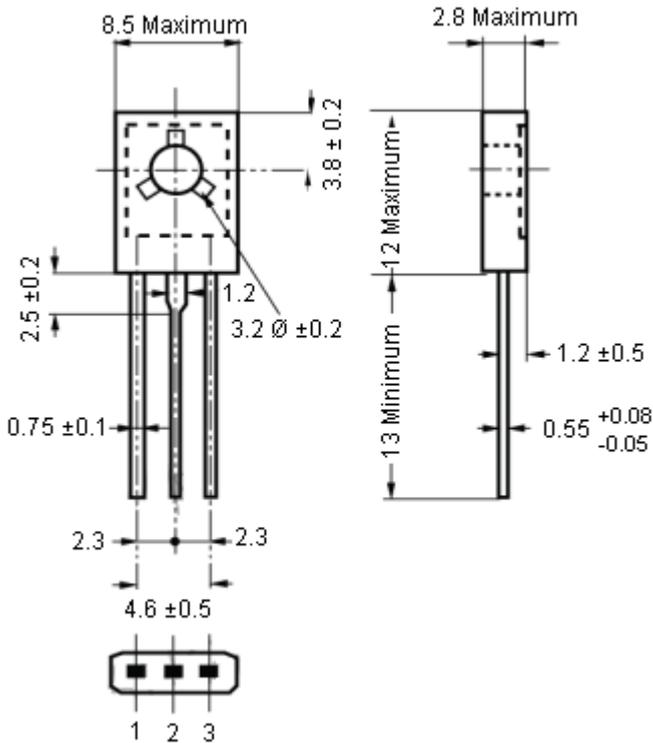
Characteristics ($T_j = 25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Parameter	Conditions	Minimum	Typical	Maximum	Unit
V_{CEsat}	Collector - emitter saturation voltage	$I_C = 1\text{ A}; I_B = 0.1\text{ A}$	-	-	0.6	V
V_{BE}	Base - emitter on voltage	$I_C = 1\text{ A}; V_{CE} = 2\text{ V}$	-	-	1.3	V
$V_{CEO (SUS)}$	Collector - emitter sustaining voltage	$I_C = 0.1\text{ A}; I_B = 0$	80	-	-	V
I_{CBO}	Collector cut-off current	$V_{CB} = 100\text{ V}; I_E = 0$	-	-	100	mA
I_{EBO}	Emitter cut-off current	$V_{EB} = 5\text{ V}; I_C = 0$	-	-	1	mA
h_{FE-1}	DC current gain	$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	40	-	-	-
h_{FE-2}	DC current gain	$I_C = 1\text{ A}; V_{CE} = 2\text{ V}$	25	-	-	-
f_T	Transition frequency	$I_C = 250\text{ mA}; V_{CE} = 10\text{ V}$	3	-	-	MHz

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Package Outline



Dimensions : Millimetres

Fig. 2 Outline Dimensions

Part Number Table

Description	Part Number
Silicon NPN Power Transistor	BD237

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