

Silicon NPN Power Transistor



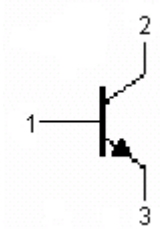
Features:

- High voltage
- High speed switching

Application:

For use in horizontal deflection circuits of high resolution monitors

Fig. 1 Simplified Outline (TO-3PFA) and Symbol



Pinning

Pin	Description
1	Base
2	Collector
3	Emitter

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

Symbol	Parameter	Conditions	Value	Unit
V_{CBO}	Collector - base voltage	Open emitter	1,500	V
V_{CEO}	Collector - emitter voltage	Open base	700	V
V_{EBO}	Emitter - base voltage	Open collector	7.5	V
I_C	Collector current (DC)	-	8	A
I_{CP}	Collector current (Pulse)	-	15	A
I_B	Base current (DC)	-	4	A
I_{BM}	Base current (Pulse)	-	6	A
P_{tot}	Total power dissipation	$T_C = 25^\circ\text{C}$	34	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
$V_{CEO(SUS)}$	Collector - emitter sustaining voltage	$I_C = 100\text{ mA}$; $I_B = 0$; $L = 25\text{ mH}$	700	-	-	V
$V_{(BR)EBO}$	Emitter - base breakdown voltage	$I_E = 1\text{ mA}$; $I_C = 0$	7.5	13.5	-	V
V_{CEsat}	Collector - emitter saturation voltage	$I_C = 4.5\text{ A}$; $I_B = 1.6\text{ A}$	-	-	1	V

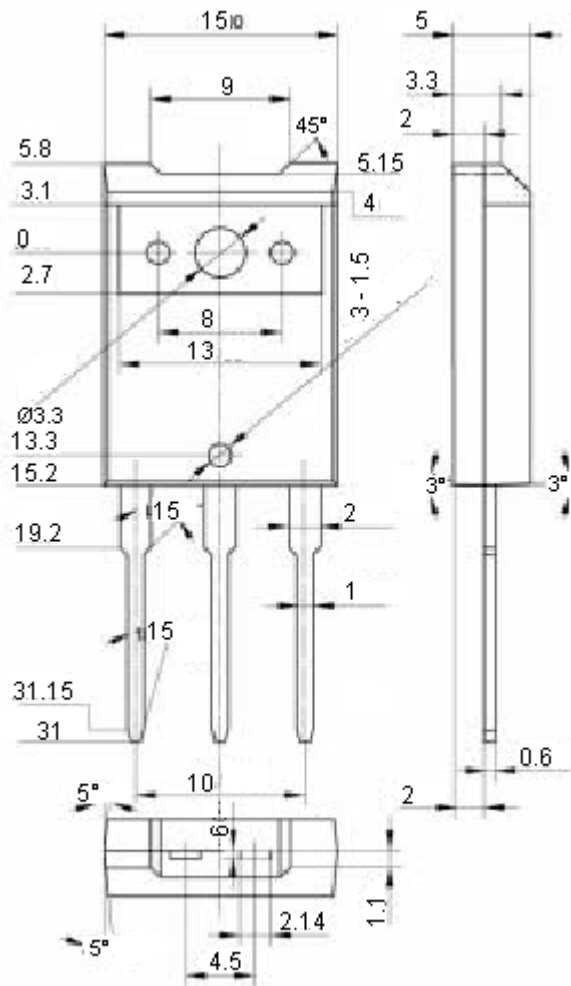
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Characteristics (T_j = 25°C Unless Otherwise Specified)

Symbol	Parameter	Conditions	Minimum	Typical	Maximum	Unit
V _{BEsat}	Base - emitter saturation voltage	I _C = 4.5 A; I _B = 2 A	-	-	1.1	V
I _{CES}	Collector cut-off current	V _{CE} = Rated V _{CE} ; V _{BE} = 0 T _C = 125°C	-	-	1 2	mA
I _{EBO}	Emitter cut-off current	V _{EB} = 6 V; I _C = 0	-	-	10	mA
h _{FE}	DC current gain	I _C = 0.1 A; V _{CE} = 5 V	6	-	30	-
f _T	Transition frequency	I _C = 0.1 A; V _{CE} = 5 V	-	7	-	MHz
C _{OB}	Output capacitance	I _E = 0; V _{CB} = 10 V; f = 1 MHz	-	125	-	pF

Package Outline



Dimensions : Millimetres

Fig. 2 Outline Dimensions (Unindicated Tolerance : ±0.3 mm)

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