

Silicon NPN Power Transistors

2SD1402

DESCRIPTION

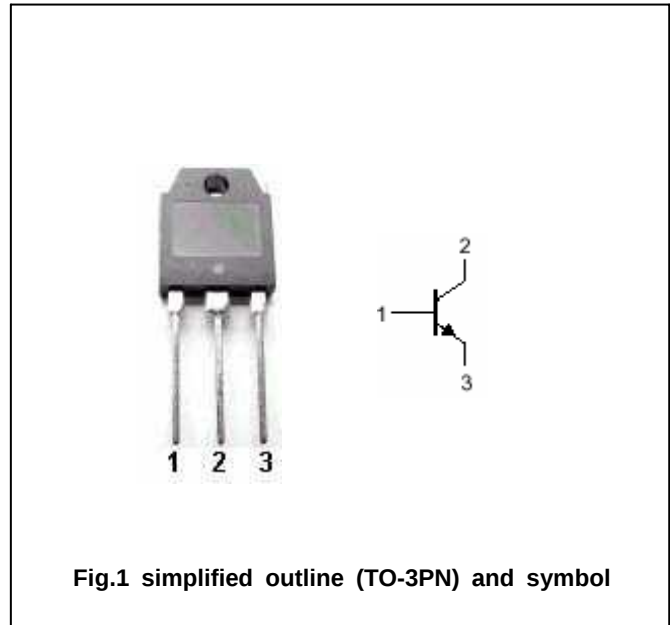
- With TO-3PN package
- High speed switching
- High voltage, high reliability
- Wide area of safe operation

APPLICATIONS

- For CRT horizontal output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter



Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	800	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		5	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	120	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =100mA; I _B =0	800			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =800V; I _E =0			10	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			10	μ A
h _{FE}	DC current gain	I _C =1A ; V _{CE} =5V	8			
f _T	Transition frequency	I _C =1A ; V _{CE} =10V		3		MHz

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The technical drawing shows two views of a mechanical component. The left view is a front elevation with vertical dimensions on the left (0.00 to 42.60) and horizontal dimensions at the top (8.00 to 15.60). It features three circular holes in the upper section and one in the lower section, with various radii (R0.50, R0.90) and chamfers (30°x1.50, 10°x3.50) indicated. The right view is a side profile with vertical dimensions (7.00 to 40.10) and horizontal dimensions (4.80 to 10.90). It shows the thickness of the part and the profile of the base. Tolerances are specified for several dimensions, such as 2.00 ± 0.005 , 0.60 ± 0.005 , and $3.40^{+0.05}_0$.