

Silicon NPN Power Transistors

2N6512

DESCRIPTION

- With TO-3 package
- High breakdown voltage
- Low collector saturation voltage

APPLICATIONS

- For use in switching power supply applications and other inductive switching circuits

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

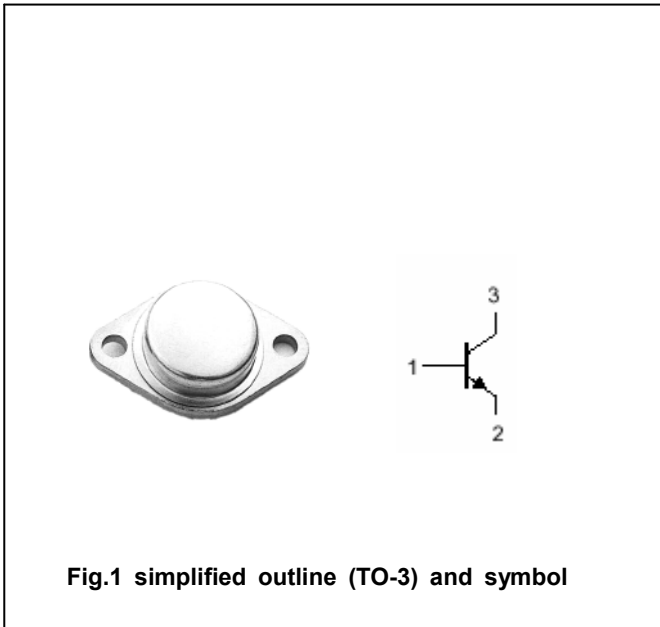


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	400	V
V _{CEO}	Collector-emitter voltage	Open base	300	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		7	A
I _{CM}	Collector current-peak		14	A
P _D	Total power dissipation	T _C =25□	120	W
T _j	Junction temperature		150	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R _{th j-c}	Thermal resistance junction to case	1.25	□/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	300			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =3A; I _B =0.4A			1.0	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =5A; I _B =1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A; I _B =1A			1.5	V
I _{CES}	Collector cut-off current	V _{CE} =400V; V _{BE(off)} =-1.5V T _C =100 °C			0.1 1.5	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =4A ; V _{CE} =3V	10		50	
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		3		MHz

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PACKAGE OUTLINE

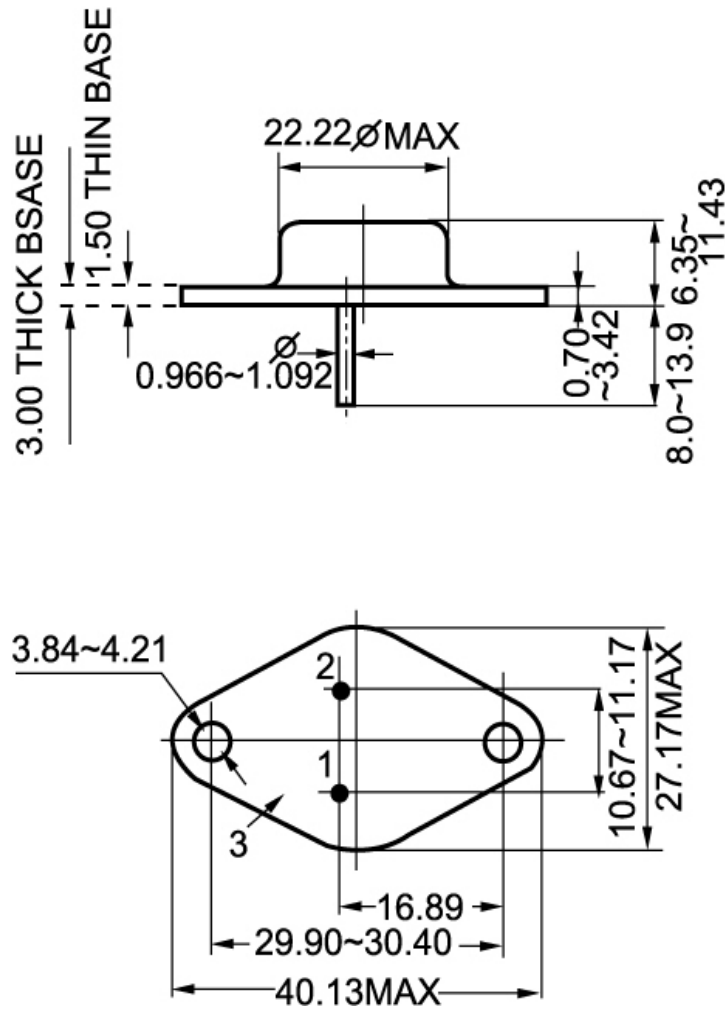


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)