

Silicon NPN Power Transistors

2N5157

DESCRIPTION

- With TO-3 package
- High breakdown voltage

APPLICATIONS

- Switching regulator
- Inverters
- Solenoid and relay drivers
- Motor controls

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

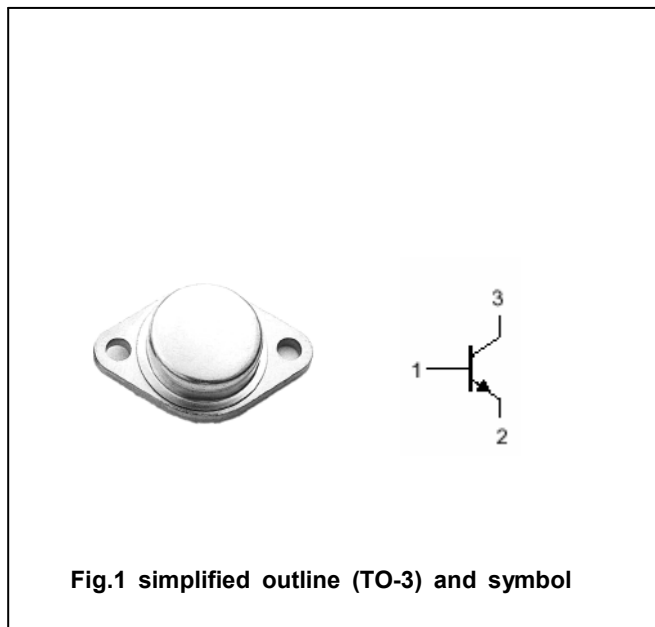


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings(Ta=□)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	700	V
V _{CEO}	Collector-emitter voltage	Open base	500	V
V _{EBO}	Emitter-base voltage	Open collector	7	V
I _C	Collector current		3.5	A
P _T	Total power dissipation	T _c =25□	100	W
T _j	Junction temperature		165	□
T _{stg}	Storage temperature		-65~200	□

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	1.0	□/W

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	500			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.5A			1.2	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.5A			1.5	V
I _{CB0}	Collector cut-off current	V _{CB} =700V; I _E =0 T _C =125°C			0.2 2.0	mA
I _{CE0}	Collector cut-off current	V _{CE} =500V; I _B =0			5.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =1A ; V _{CE} =5V	30		90	
f _T	Transition frequency	I _C =1A ; V _{CE} =10V;f=5.0MHz		2.8		MHz

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PACKAGE OUTLINE

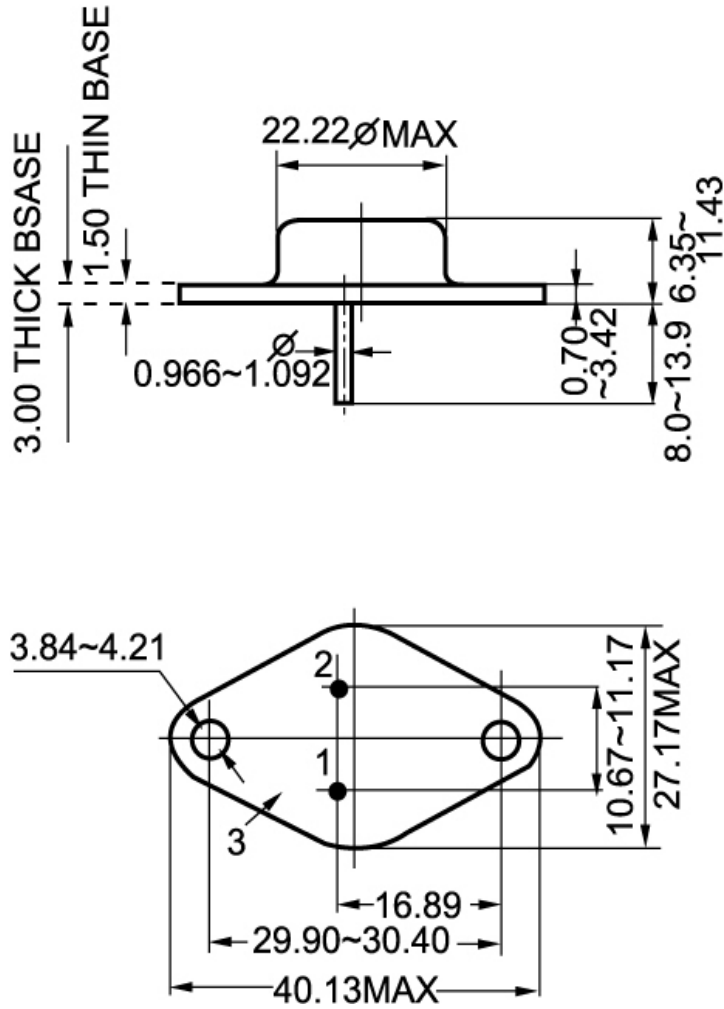


Fig.2 Outline dimensions