

Silicon NPN Power Transistors

2N5157

DESCRIPTION

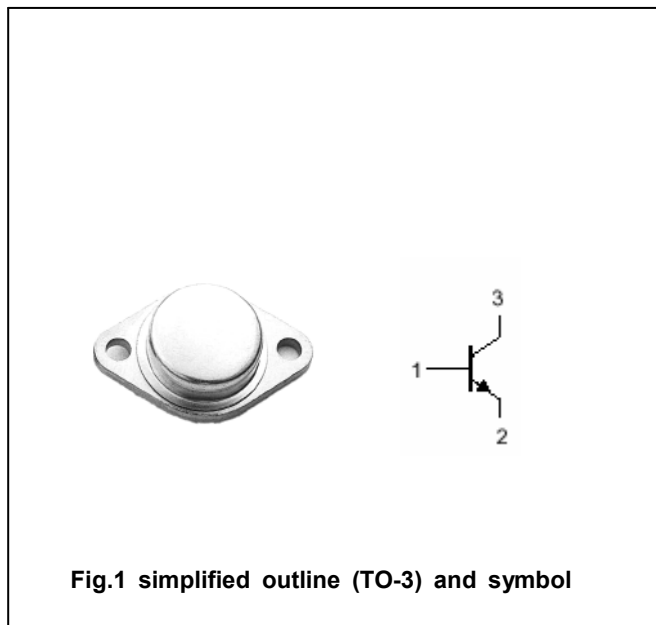
- With TO-3 package
- High breakdown voltage

APPLICATIONS

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

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = \square$)

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	$T_c = 25 \square$	100	W
T_j	Junction temperature		165	$\square$
T_{stg}	Storage temperature		-65~200	$\square$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.0	$\square/W$

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2N5157**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 _{CBO}	Collector cut-off current	V _{CB} =700V; I _E =0 T _C =125°C			0.2 2.0	mA
I _{CEO}	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

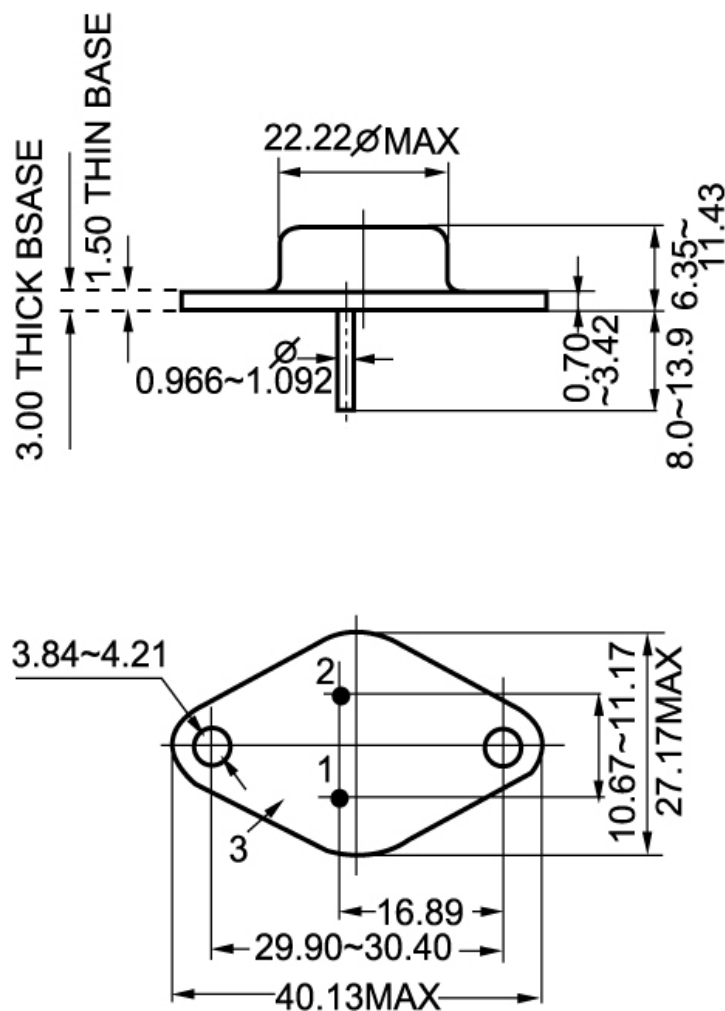


Fig.2 Outline dimensions