

Silicon NPN Power Transistors

2N5241

DESCRIPTION

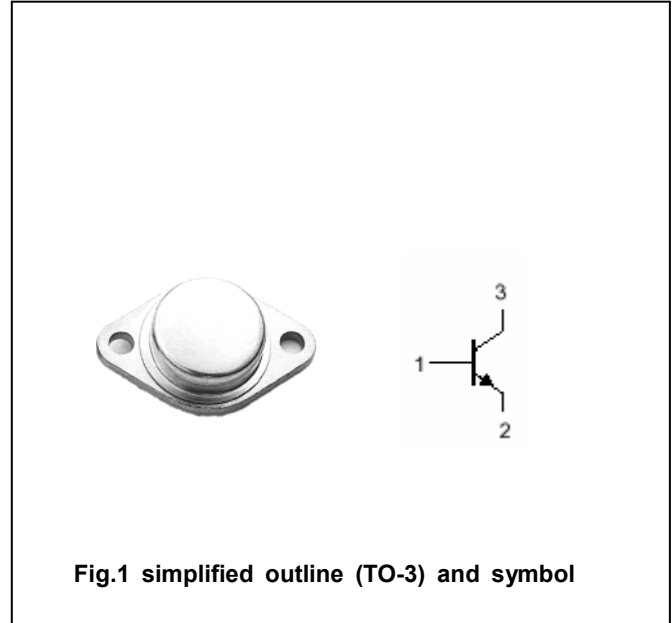
- With TO-3 package
- High breakdown voltage

APPLICATIONS

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

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

**MAXIMUM RATINGS(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
P_T	Total power dissipation	$T_c=25^\circ\text{C}$	125	W
T_j	Junction temperature		165	°C
T_{stg}	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.46	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	400			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A; I _B =0.4A			2.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A; I _B =0.4A			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =400V; I _E =0 T _C =125 °C			0.2 2.0	mA
I _{CEO}	Collector cut-off current	V _{CE} =400V; I _B =0			5.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			1.0	mA
h _{FE}	DC current gain	I _C =2.5A ; V _{CE} =5V	15		35	

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PACKAGE OUTLINE

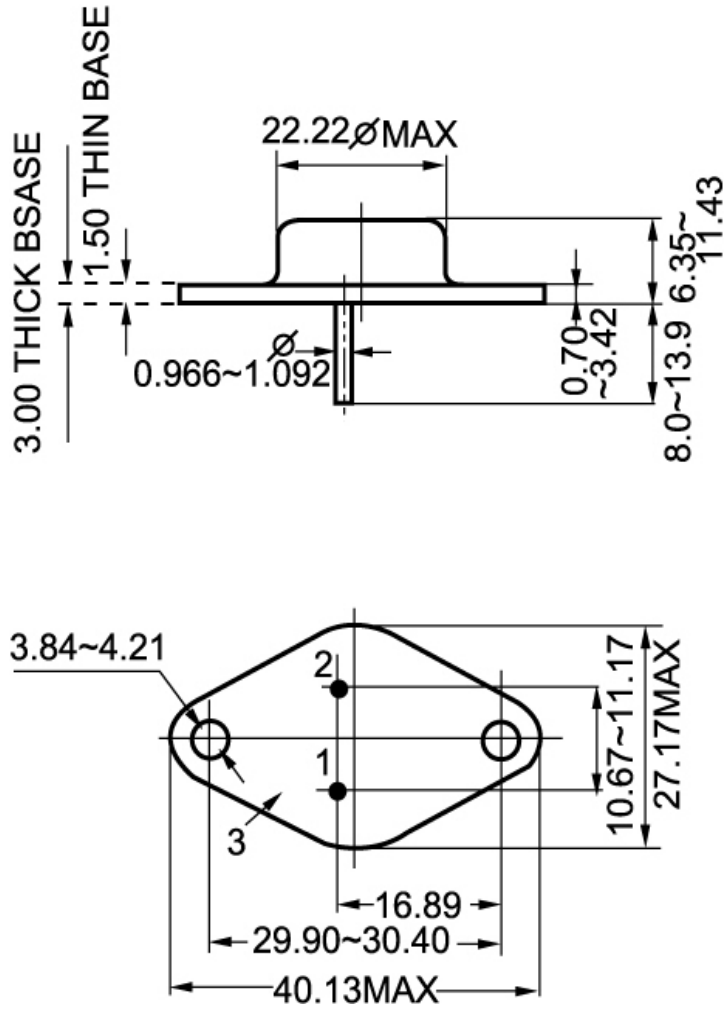


Fig.2 Outline dimensions