

SavantIC Semiconductor

Product Specification

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

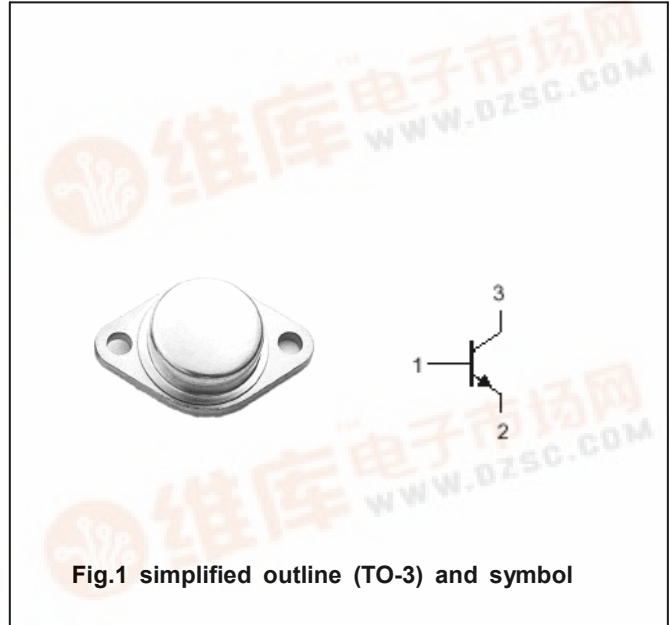


Fig.1 simplified outline (TO-3) and symbol

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°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

 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1\text{A}$; $I_B=0$	400			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2\text{A}$; $I_B=0.4\text{A}$			2.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2\text{A}$; $I_B=0.4\text{A}$			2.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=400\text{V}$; $I_E=0$ $T_C=125^\circ\text{C}$			0.2 2.0	mA
I_{CEO}	Collector cut-off current	$V_{CE}=400\text{V}$; $I_B=0$			5.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}$; $I_C=0$			1.0	mA
h_{FE}	DC current gain	$I_C=2.5\text{A}$; $V_{CE}=5\text{V}$	15		35	

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PACKAGE OUTLINE

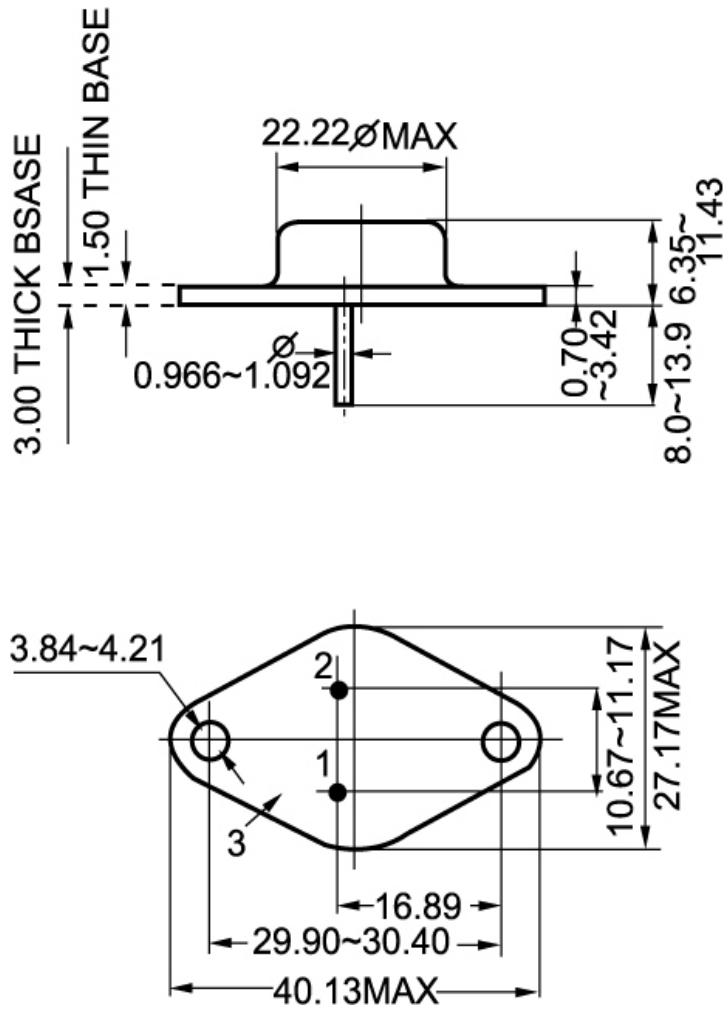


Fig.2 Outline dimensions