

Inchange Semiconductor

Product Specification

Silicon NPN Power Transistors

2N3237

DESCRIPTION

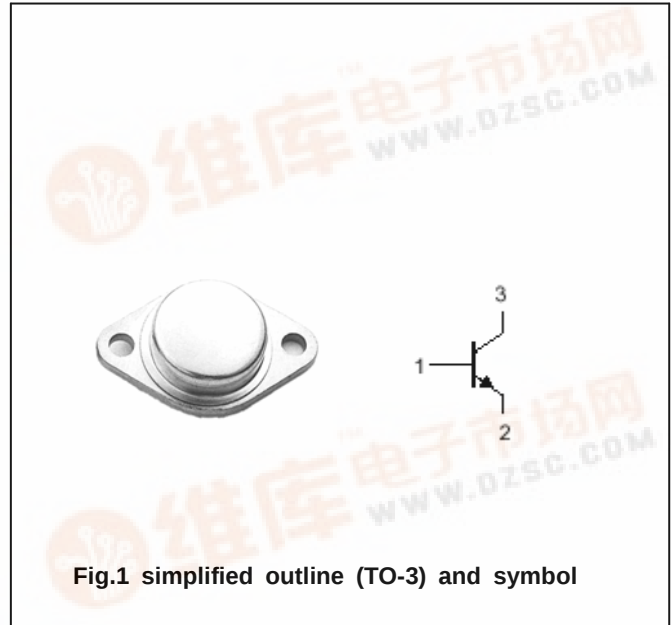
- With TO-3 package
- Excellent safe operating area
- Low collector saturation voltage

APPLICATIONS

- For power amplifier and switching circuits applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	90	V
V_{CEO}	Collector-emitter voltage	Open base	90	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		20	A
I_B	Base current		7.5	A
P_D	Total power dissipation	$T_c=25^{\circ}\text{C}$	200	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-65~200	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.875	$^{\circ}\text{C/W}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	90			V
V _{CE(sat)} -1	Collector-emitter saturation voltage	I _C =10A; I _B =1.0A			1.4	V
V _{CE(sat)} -2	Collector-emitter saturation voltage	I _C =20A ; I _B =4.0A			4.0	V
V _{BE(on)}	Base-emitter on voltage	I _C =10A ; V _{CE} =4V			2.2	V
I _{CEO}	Collector cut-off current	V _{CE} =45V; I _B =0			1.0	mA
I _{CBO}	Collector cut-off current	V _{CB} =90V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =4V	40			
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =4V	15		60	
h _{FE-3}	DC current gain	I _C =20A ; V _{CE} =4V	5			

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PACKAGE OUTLINE

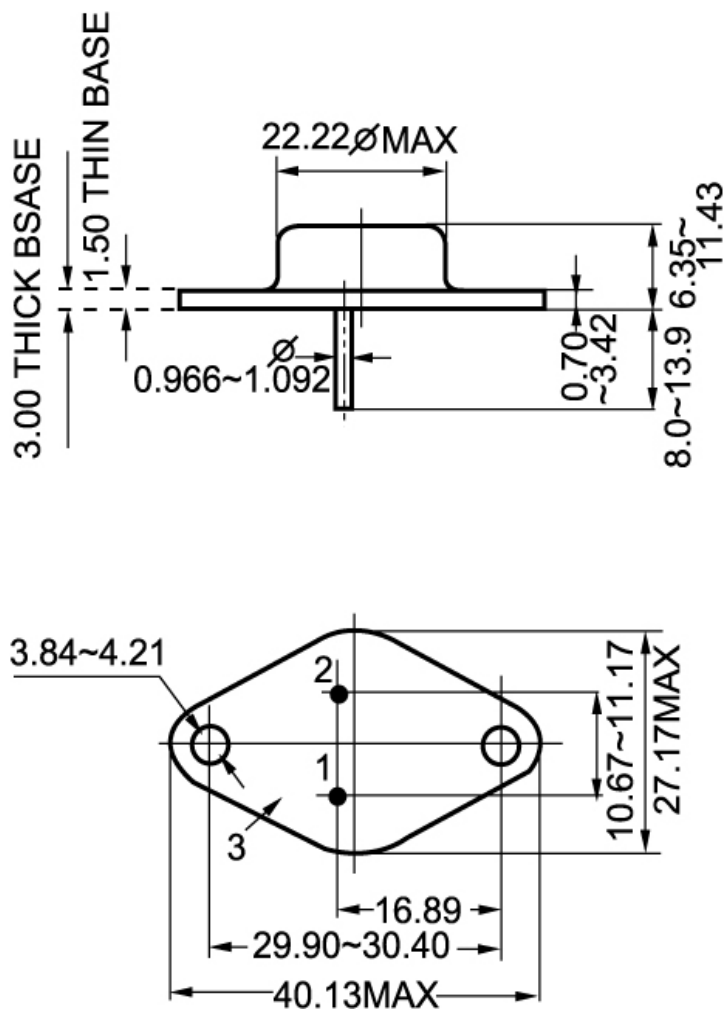


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)