

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

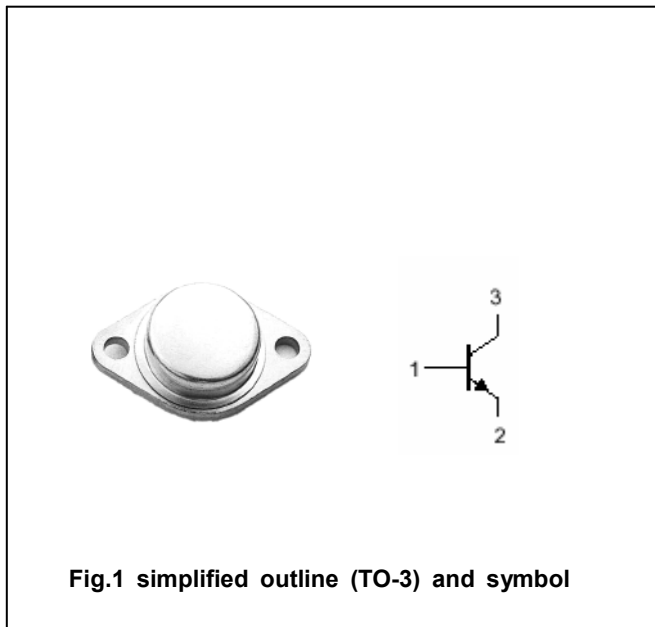


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	90	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	90	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		20	A
I <sub>B</sub>	Base current		7.5	A
P <sub>D</sub>	Total power dissipation	T <sub>C</sub> =25°C	200	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	0.875	°C/W

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

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

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PACKAGE OUTLINE



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