

**Silicon NPN Power Transistors**

**2N5559**

**DESCRIPTION**

- With TO-3 package
- Excellent safe operating area

**APPLICATIONS**

- For industrial and commercial equipment including high fidelity audio amplifiers, series and shunt regulators and power switches applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

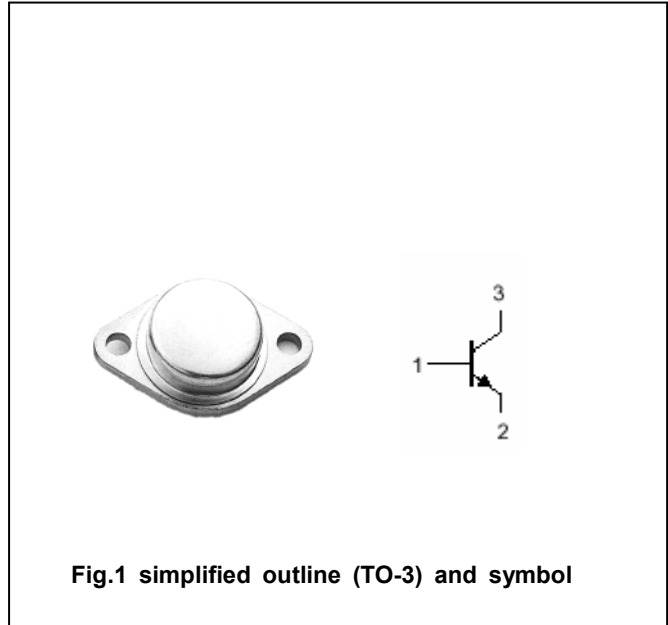


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	150	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	120	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		10	A
I <sub>CM</sub>	Collector current-peak		15	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	100	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-65~200	□

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	1.5	□/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	120			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A ; I <sub>B</sub> =2A			5.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =10A ; V <sub>CE</sub> =4V			5.7	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =140V ; I <sub>B</sub> =0			5.0	mA
I <sub>CEX</sub>	Collector cut-off current	V <sub>CE</sub> =120V ; V <sub>BE(off)</sub> =1.5V T <sub>C</sub> =150°C			2.0 10	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V ; I <sub>C</sub> =0			2.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =4A ; V <sub>CE</sub> =2V	12		60	

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PACKAGE OUTLINE

