

Silicon NPN Power Transistors

2N6500

**DESCRIPTION**

- With TO-66 package
- Wide area of operation
- High sustaining voltage

**APPLICATIONS**

- For high-speed switching and linear-amplifier applications

**PINNING (See Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

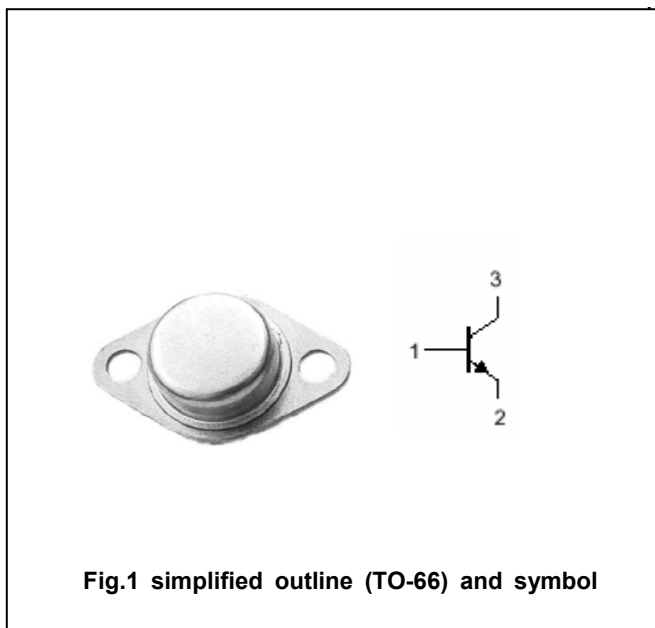


Fig.1 simplified outline (TO-66) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	120	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	90	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current		4	A
I <sub>CM</sub>	Collector current-peak		5	A
I <sub>B</sub>	Base current		3	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	35	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal resistance junction to case	5.0	°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> =0.2 A ; I <sub>B</sub> =0	90			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A; I <sub>B</sub> =0.3A			1.5	V
V <sub>BEsat</sub>	Base -emitter saturation voltage	I <sub>C</sub> =3A; I <sub>B</sub> =0.3A			2.5	V
I <sub>CEV</sub>	Collector cut-off current	V <sub>CE</sub> =110V; V <sub>BE(off)</sub> =-1.5V T <sub>C</sub> =150 °C			5.0 10	mA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =70V; I <sub>B</sub> =0			5.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V; I <sub>C</sub> =0			25	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =3A ; V <sub>CE</sub> =2V	15		60	
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=1MHz			175	pF

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PACKAGE OUTLINE

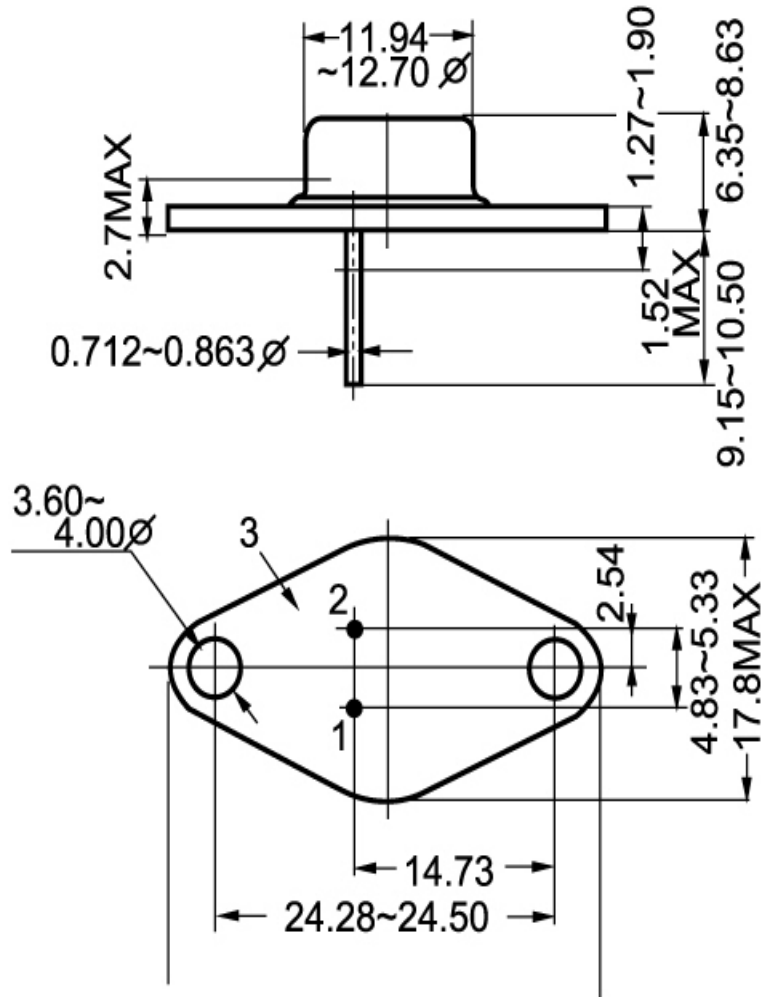


Fig.2 Outline dimensions