

Silicon NPN Power Transistors

2N6530

DESCRIPTION

- With TO-220 package
- DARLINGTON
- High DC current gain

APPLICATIONS

- Power switching
- Hammer drivers
- Series and shunt regulators
- Audio amplifiers

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

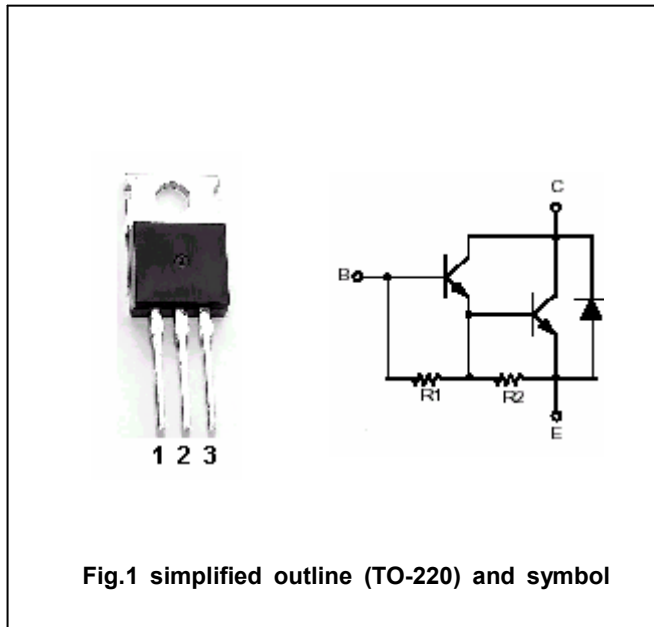


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	80	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		8	A
I <sub>CM</sub>	Collector current-Peak		15	A
I <sub>B</sub>	Base current		0.25	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25°C	65	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
R <sub>θJC</sub>	Thermal resistance junction to case	1.92	°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>CEQ(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.2A ; I <sub>B</sub> =0	80			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A ; I <sub>B</sub> =10mA			2.0	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =8A ; I <sub>B</sub> =80mA			3.0	V
V <sub>BE-1</sub>	Base -emitter on voltage	I <sub>C</sub> =5A ; V <sub>CE</sub> =3V			2.8	V
V <sub>BE-2</sub>	Base -emitter on voltage	I <sub>C</sub> =8A ; V <sub>CE</sub> =3V			4.5	V
I <sub>CEV</sub>	Collector cut-off current	V <sub>CE</sub> =80V ; V <sub>BE</sub> =-1.5V T <sub>C</sub> =125°C			0.5 5.0	mA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =80V ; I <sub>B</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V ; I <sub>C</sub> =0			5.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =5A ; V <sub>CE</sub> =3V	1000		10000	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =8A ; V <sub>CE</sub> =3V	100		5000	
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =8A			5.0	V

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PACKAGE OUTLINE

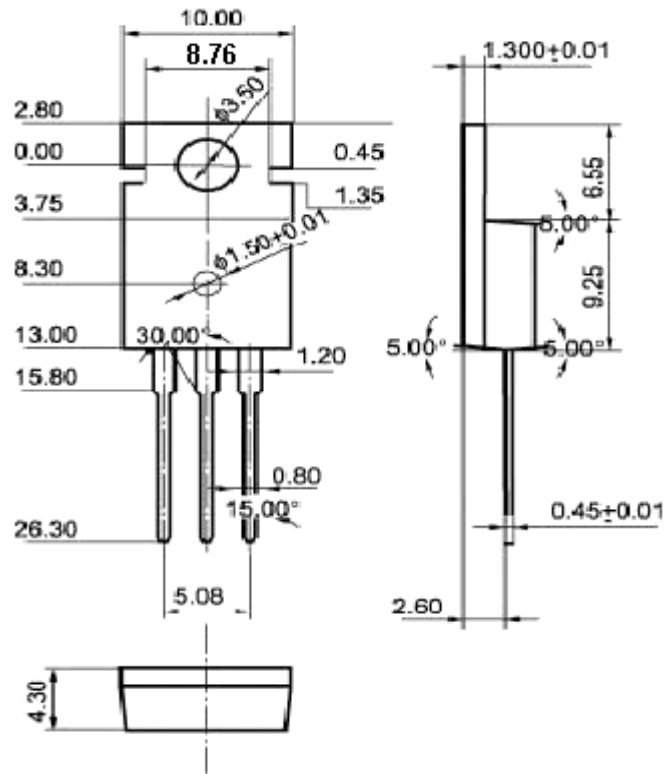


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)