

Silicon NPN Power Transistors

2SC2307

**DESCRIPTION**

- With TO-3PN package
- High voltage ,high speed

**APPLICATIONS**

- For power switching applications

**PINNING**

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

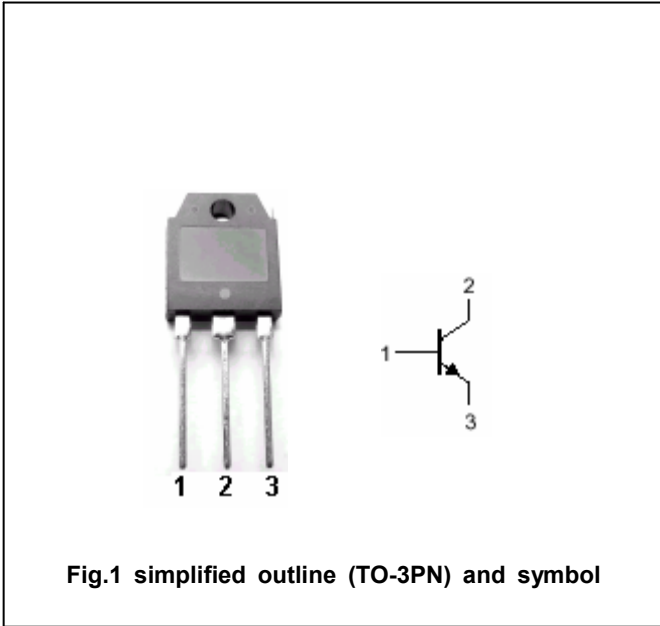


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	400	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current (DC)		12	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	100	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =25mA ; I <sub>B</sub> =0	400			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA ; I <sub>E</sub> =0	500			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =7A; I <sub>B</sub> =1.4A			0.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =7A; I <sub>B</sub> =1.4A			1.3	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =500V; I <sub>E</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =7V; I <sub>C</sub> =0			100	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =7A ; V <sub>CE</sub> =4V	10			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =1A ; V <sub>CE</sub> =12V		18		MHz

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PACKAGE OUTLINE

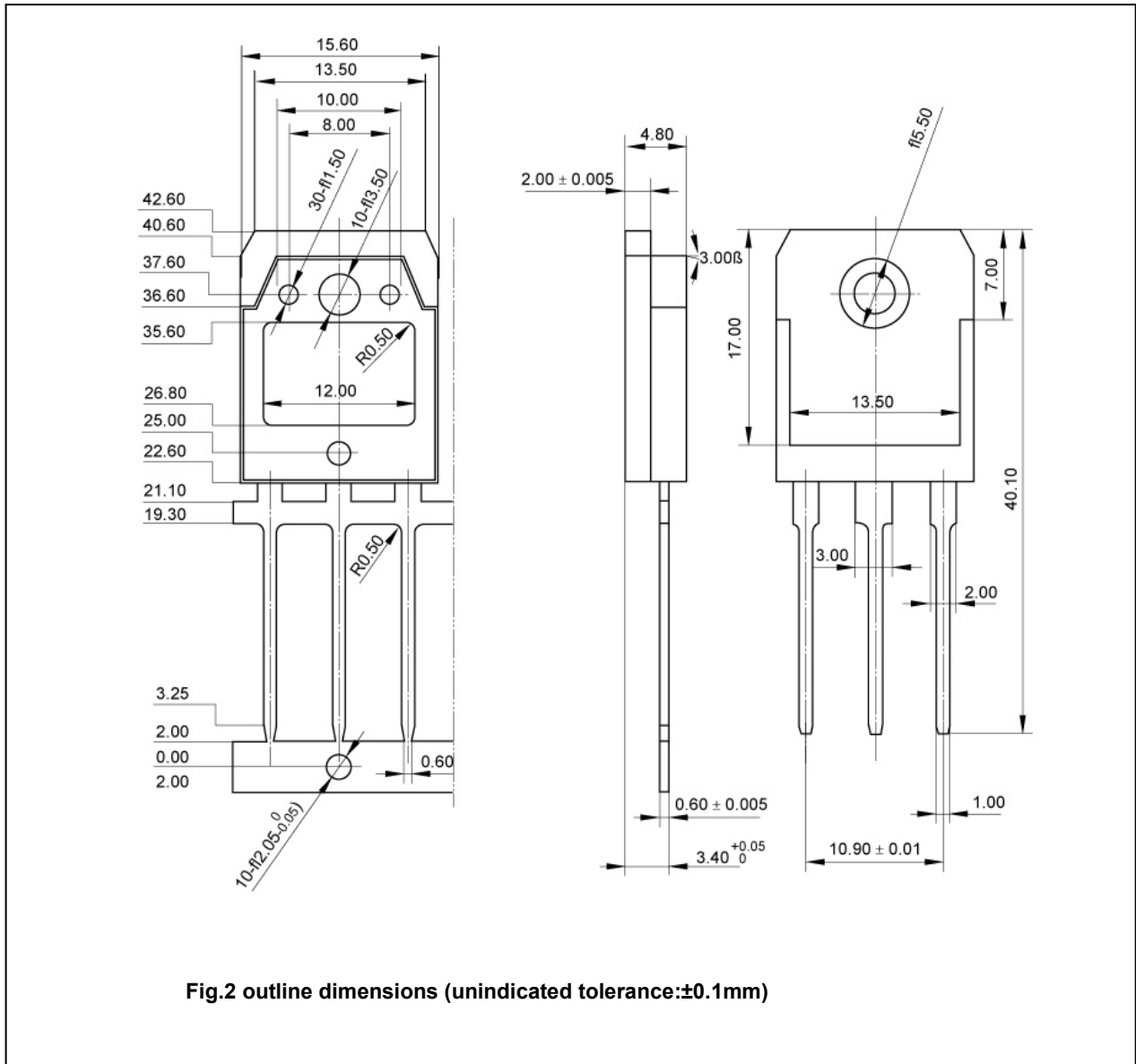


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1$ mm)