

Silicon PNP Power Transistors

2SB691

**DESCRIPTION**

- With TO-3PN package
- Wide area of safe operation

**APPLICATIONS**

- For low frequency power amplifier and power switching applications

**PINNING**

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

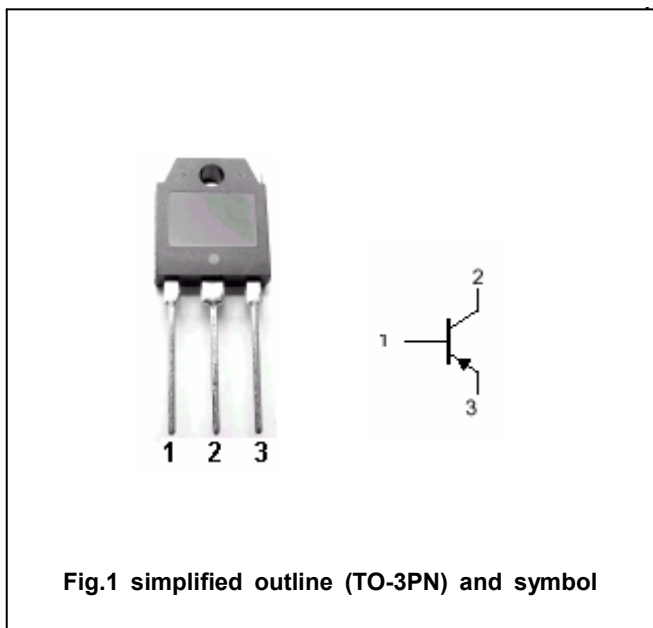


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Tc=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-130	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		-5	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	60	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

## Silicon PNP Power Transistors

2SB691

## 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> =-30mA ; I <sub>B</sub> =0	-80			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA ; I <sub>E</sub> =0	-130			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1mA ; I <sub>C</sub> =0	-5			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>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-1A; V <sub>CE</sub> =-5V			-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-130V; 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> =-5V	40		200	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-3A ; V <sub>CE</sub> =-5V	20			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-5V		7		MHz

Silicon PNP Power Transistors

2SB691

PACKAGE OUTLINE

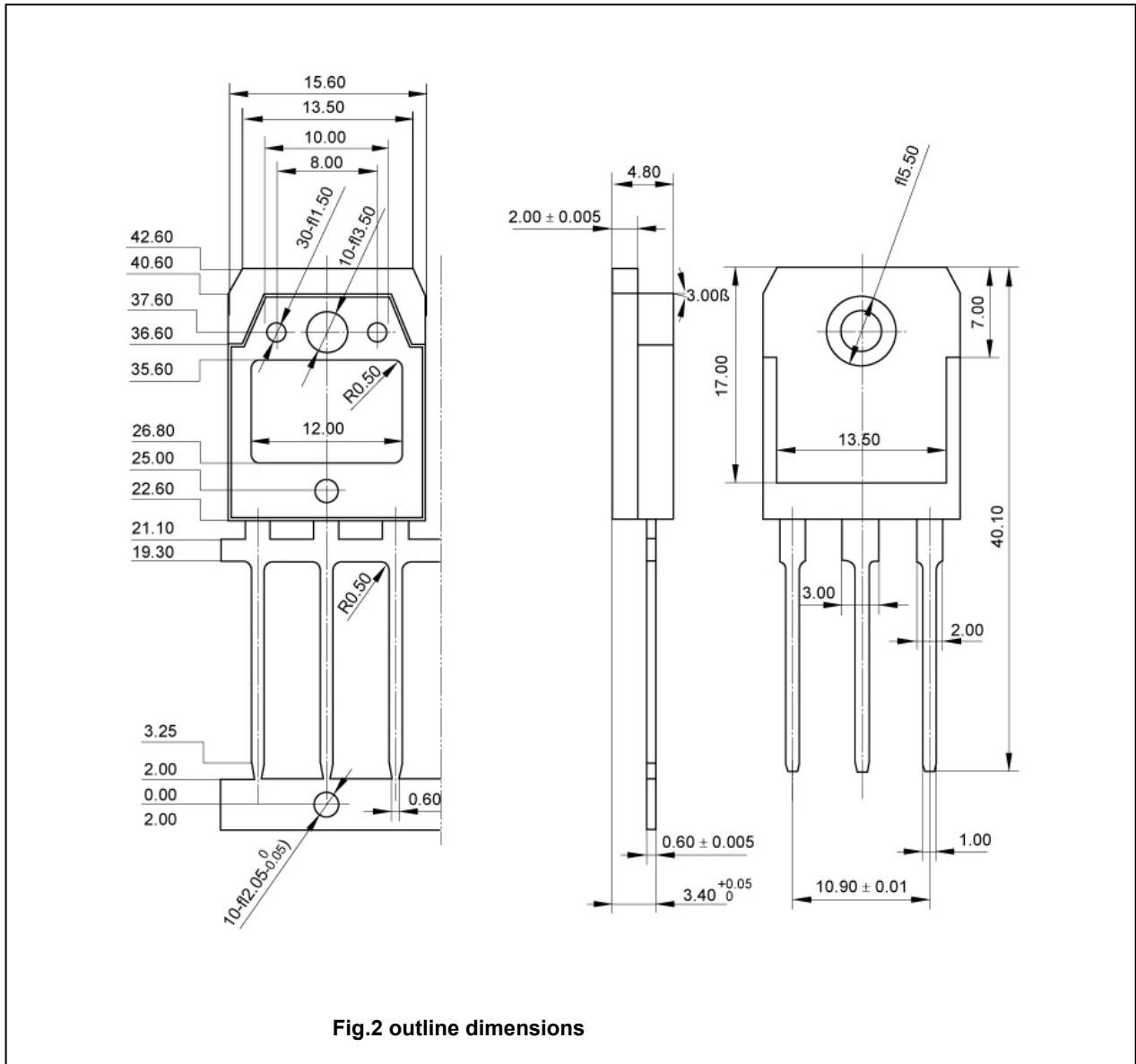


Fig.2 outline dimensions