

## Silicon NPN Power Transistors

2SC1114

**DESCRIPTION**

- With TO-3 package
- High voltage
- Wide area of safe operation

**APPLICATIONS**

- For power amplifier applications

**PINNING (See Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

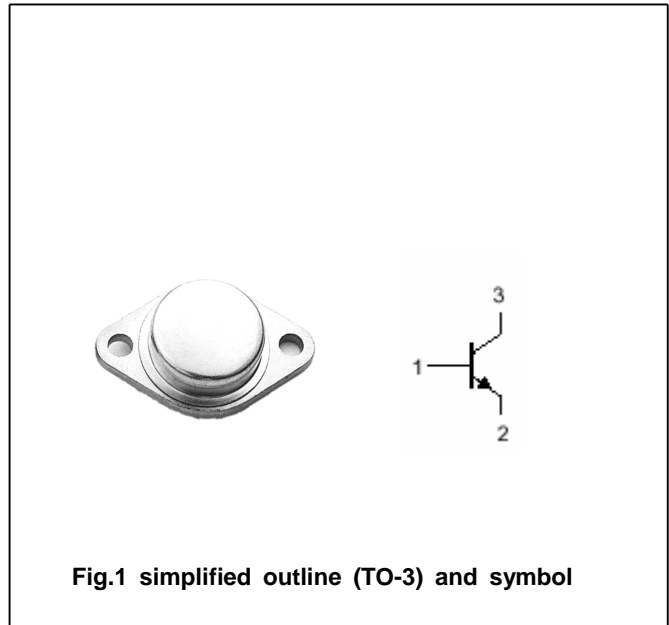


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings(Ta=25?)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	325	V
$V_{CEO}$	Collector-emitter voltage	Open base	300	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		4	A
$P_C$	Collector power dissipation	$T_C=25?$	100	W
$T_j$	Junction temperature		150	?
$T_{stg}$	Storage temperature		-65~150	?

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =10mA ; I <sub>B</sub> =0	300			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA; I <sub>E</sub> =0	325			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> =2A ; I <sub>B</sub> =0.4A			0.8	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2A ; I <sub>B</sub> =0.4A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =325V; 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> =1A ; V <sub>CE</sub> =4V	20			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =12V	10			

PACKAGE OUTLINE

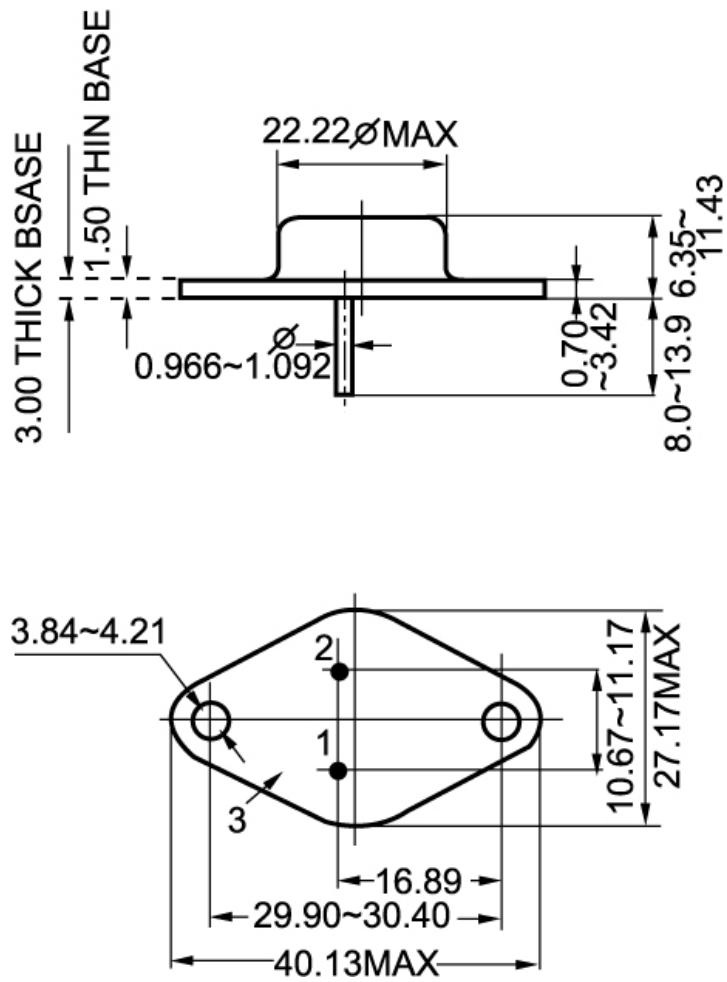


Fig.2 Outline dimensions