

## Silicon NPN Power Transistors

2SC1004

**DESCRIPTION**

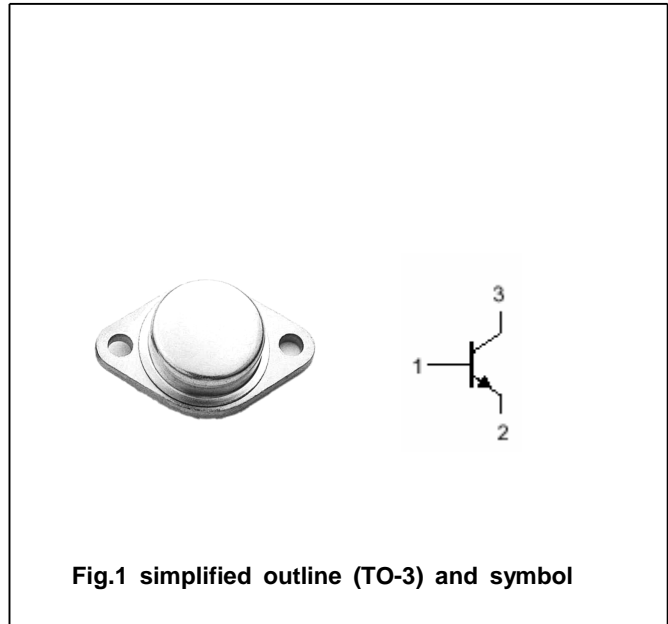
- With TO-3 package
- High breakdown voltage

**APPLICATIONS**

- For use in horizontal deflection output stages for color TV receives.

**PINNING(see fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1100	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		0.5	A
$P_T$	Total power dissipation	$T_C=25^\circ$	50	W
$T_j$	Junction temperature		150	?
$T_{stg}$	Storage temperature		-55~150	?

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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> =0.1A; I <sub>B</sub> =0	700			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> =150mA; I <sub>B</sub> =30mA			5.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =150mA; I <sub>B</sub> =30mA			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =800V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =4V; I <sub>C</sub> =0			10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =150mA; V <sub>CE</sub> =15V	30		160	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =150mA; V <sub>CE</sub> =15V	2.0			MHz

PACKAGE OUTLINE

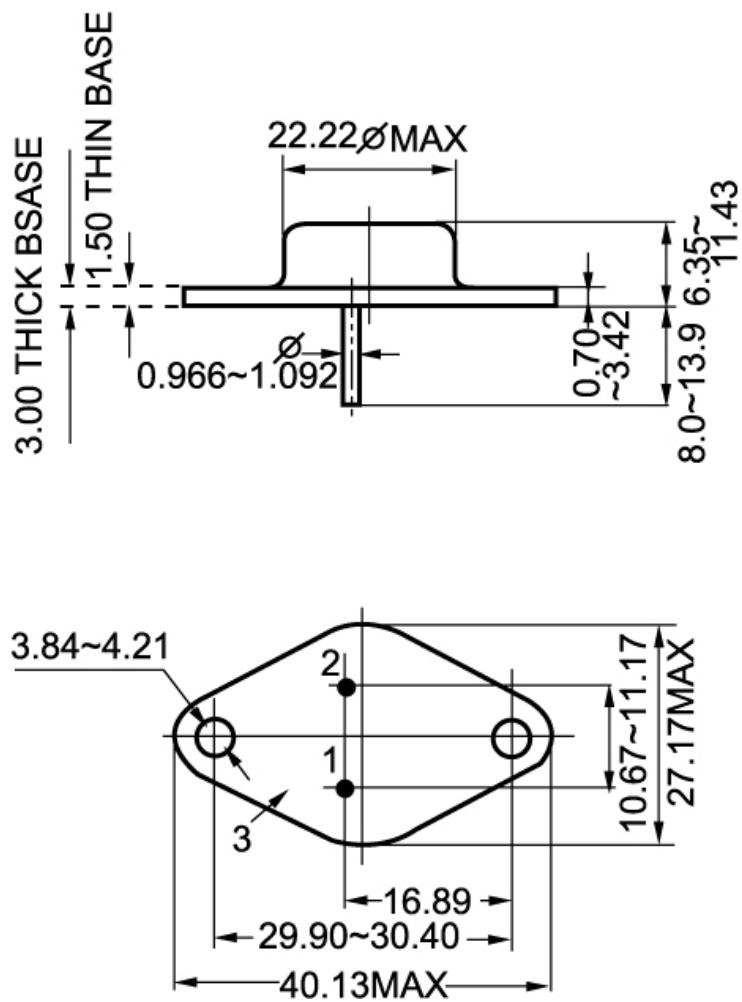


Fig.2 Outline dimensions