

## Silicon NPN Power Transistors

2SC1051

**DESCRIPTION**

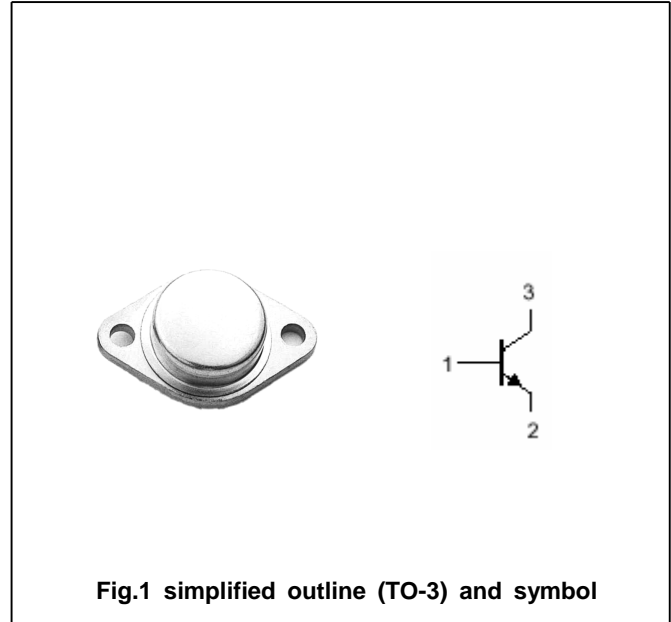
- With TO-3 package
- Wide area of safe operation

**APPLICATIONS**

- For low frequency power amplifier and large power switching applications

**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	150	V
$V_{CEO}$	Collector-emitter voltage	Open base	100	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		7	A
$P_C$	Collector power dissipation	$T_C=25^\circ$	60	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>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =0	100			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =1mA ; I <sub>E</sub> =0	150			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> =5A; I <sub>B</sub> =0.5A			2.0	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> =150V; 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</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	40		320	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V		8		MHz

U **h<sub>FE</sub> Classifications**

C	D	E	F
40-80	60-120	100-200	160-320

PACKAGE OUTLINE

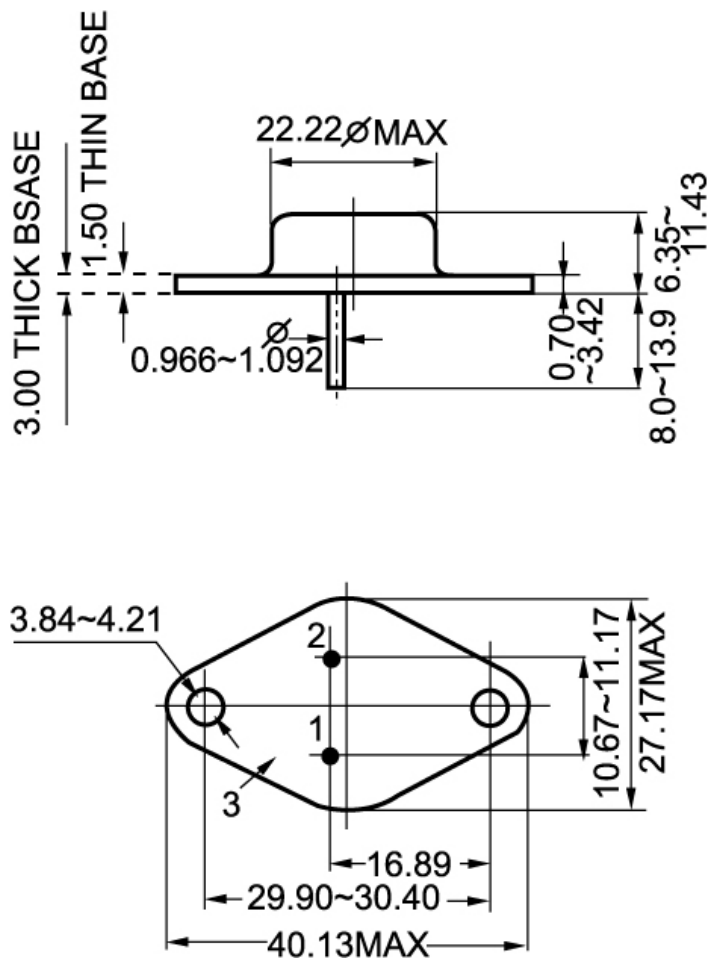


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)