

Silicon NPN Power Transistors

2SC1030

DESCRIPTION

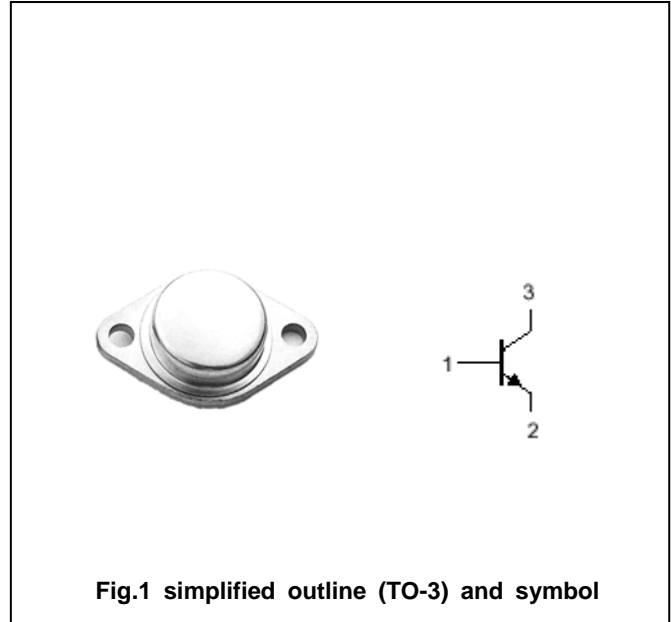
- With TO-3 package
- Wide area of safe operation

APPLICATIONS

- For low frequency power amplifier applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = ^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	150	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		6	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	50	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

 $T_j=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-emitter sustaining voltage	$I_C=0.1\text{A}; I_B=0$	80			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1\text{mA}; I_E=0$	150			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}; I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=5\text{A}; I_B=1\text{A}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=100\text{V}; I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			0.1	mA
h_{FE-1}	DC current gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	35		200	
h_{FE-2}	DC current gain	$I_C=5\text{A}; V_{CE}=5\text{V}$	22			
f_T	Transition frequency	$I_C=1\text{A}; V_{CE}=5\text{V}$		10		MHz

◆ h_{FE-1} classifications

A	B	C
35-70	60-120	100-200

PACKAGE OUTLINE

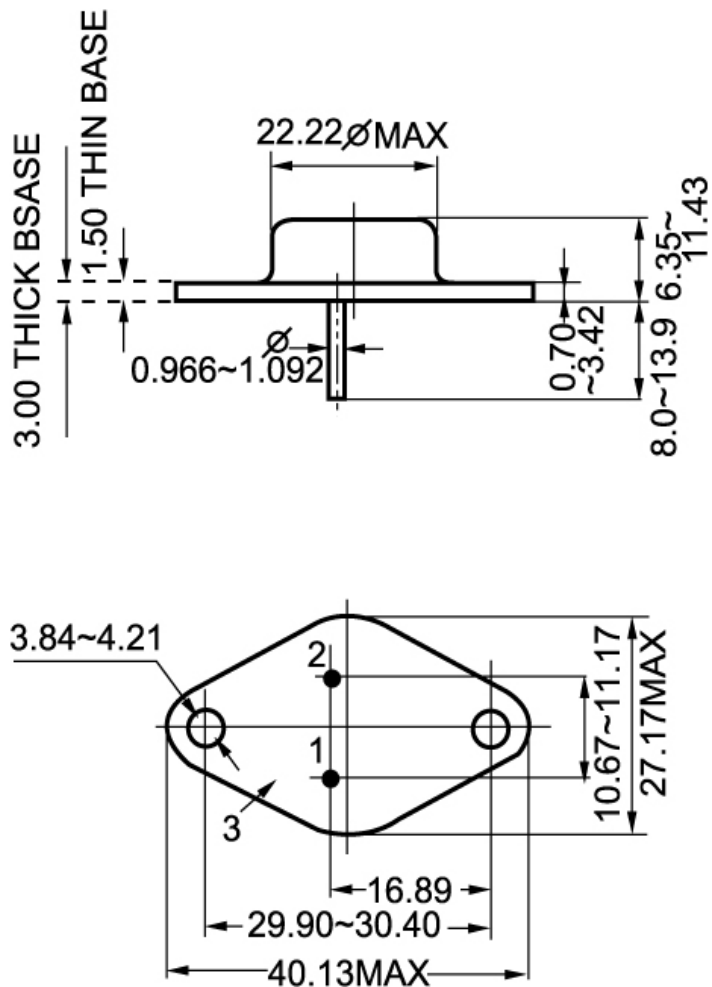


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)