

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

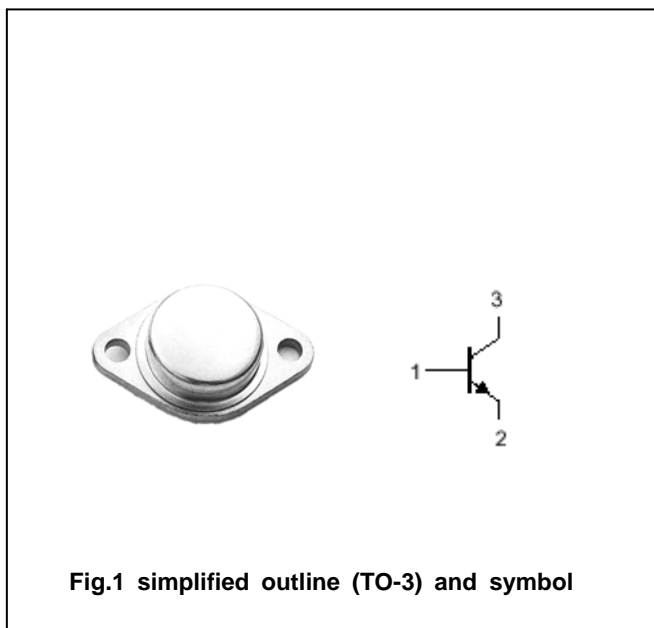


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a=25^{\circ}\text{C}$)

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	$T_C=25^{\circ}\text{C}$	100	W
T_j	Junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-65~150	$^{\circ}\text{C}$

Silicon NPN Power Transistors

2SC1114

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =10mA ; I _B =0	300			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA; I _E =0	325			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =2A ; I _B =0.4A			0.8	V
V _{BEsat}	Base-emitter saturation voltage	I _C =2A ; I _B =0.4A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =325V; I _E =0			100	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			100	μ A
h _{FE}	DC current gain	I _C =1A ; V _{CE} =4V	20			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =12V	10			

PACKAGE OUTLINE

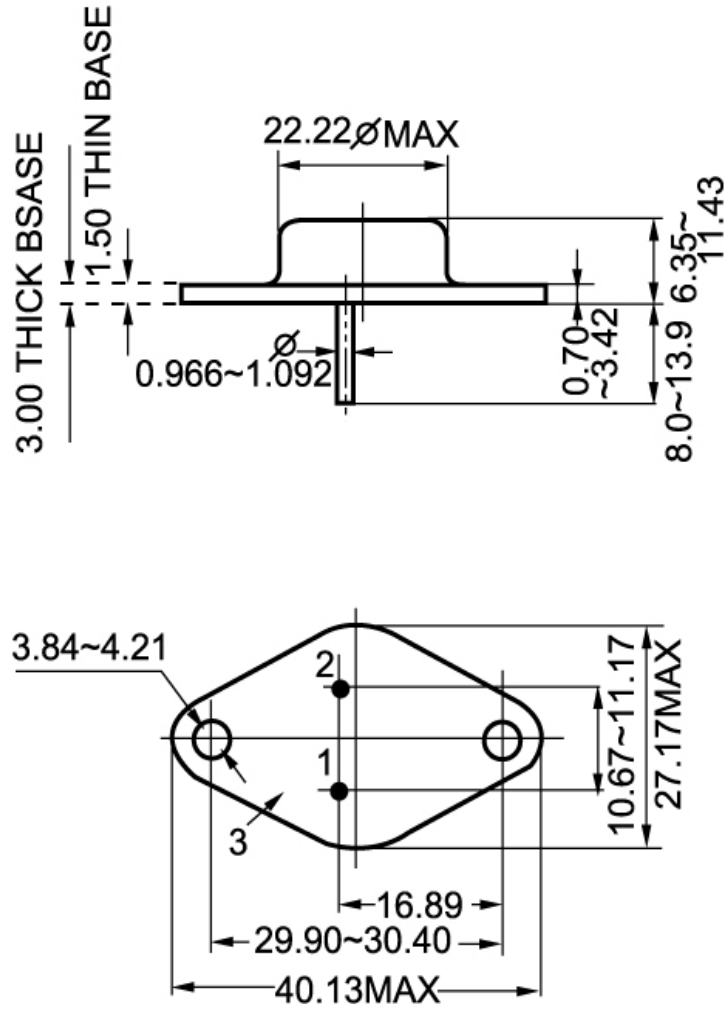


Fig.2 Outline dimensions