

Silicon NPN Power Transistors

2SC1403

DESCRIPTION

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

APPLICATIONS

- For audio frequency power amplifier applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

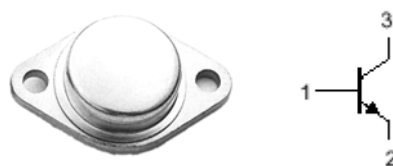


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	160	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		8	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	70	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon NPN Power Transistors**2SC1403****CHARACTERISTICS** $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=50\text{mA}$; $I_B=0$	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}$; $I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=5\text{A}$; $I_B=0.5\text{A}$			2.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=5\text{A}$; $I_B=0.5\text{A}$			2.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=160\text{V}$; $I_E=0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}$; $I_C=0$			0.1	mA
h_{FE}	DC current gain	$I_C=3\text{A}$; $V_{CE}=4\text{V}$	30			
f_T	Transition frequency	$I_C=0.5\text{A}$; $V_{CE}=10\text{V}$		10		MHz

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PACKAGE OUTLINE

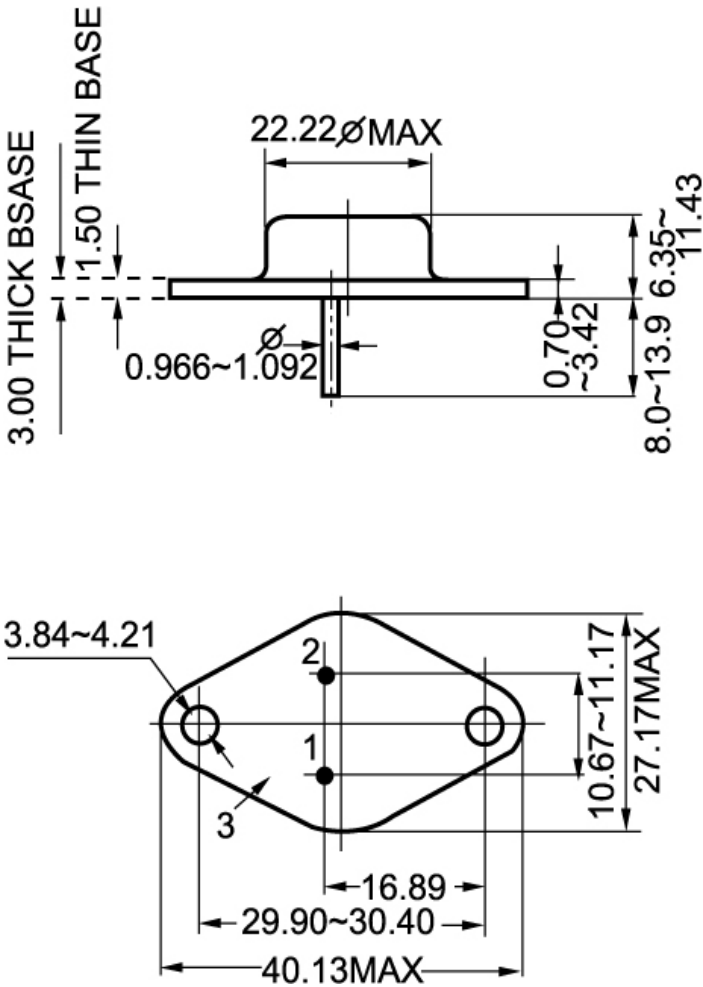


Fig.2 outline dimensions (unindicated tolerance: ±0.1mm)