

Silicon PNP Power Transistors

2SA1043

DESCRIPTION

- With TO-3 package
- High transition frequency
- Excellent safe operating area

APPLICATIONS

- Power switching applications
- High frequency power amplifier
- Switching regulators
- DC-DC converters

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

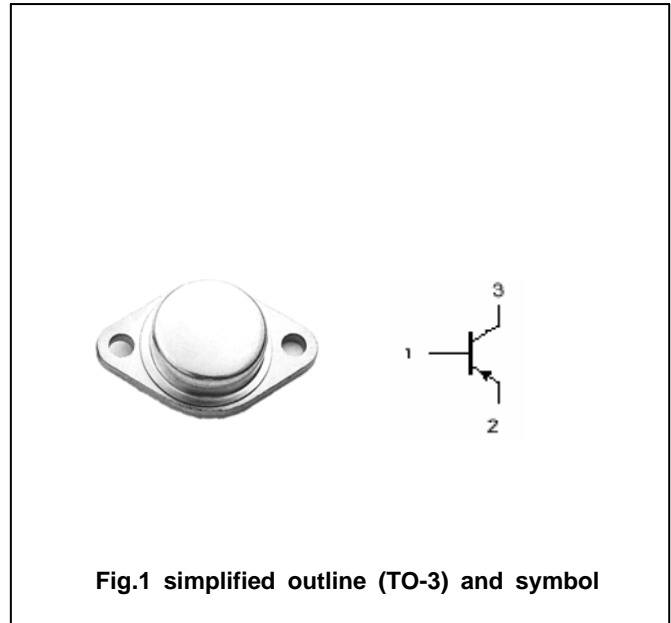


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-120	V
V_{CEO}	Collector-emitter voltage	Open base	-120	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current		-30	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	150	W
T_j	Junction temperature		175	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~200	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =-10mA ; I _B =0	-120			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =-0.1mA ; I _E =0	-120			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =-0.1mA ; I _C =0	-7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-15A; I _B =-1.5A			-1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-15A; I _B =-1.5A			-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-120V; I _E =0			-50	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-7V; I _C =0			-50	μ A
h _{FE}	DC current gain	I _C =-3A ; V _{CE} =-5V	35		200	
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =-10V; f=1.0MHz		600		pF
f _T	Transition frequency	I _C =-2A ; V _{CE} =-10V		60		MHz

PACKAGE OUTLINE

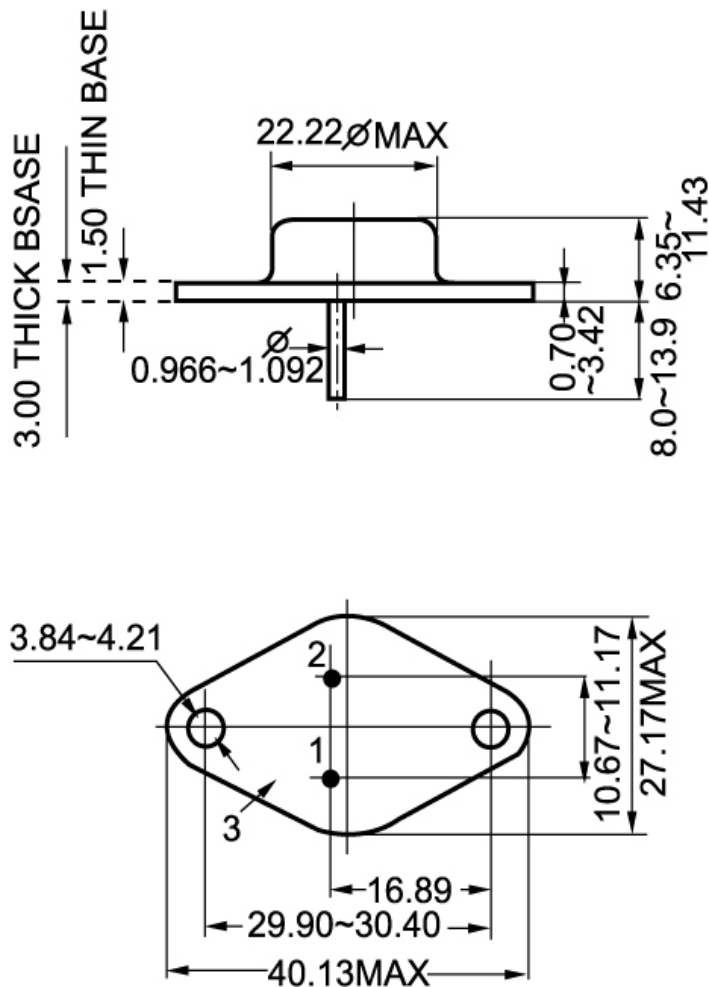


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)