

Silicon NPN Power Transistors

2SC2523

DESCRIPTION

- With TO-3 package
- Complement to type 2SA1073
- Wide area of safe operation

APPLICATIONS

- High frequency power amplifier
- Audio power amplifiers
- Switching regulators
- DC-DC converters

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

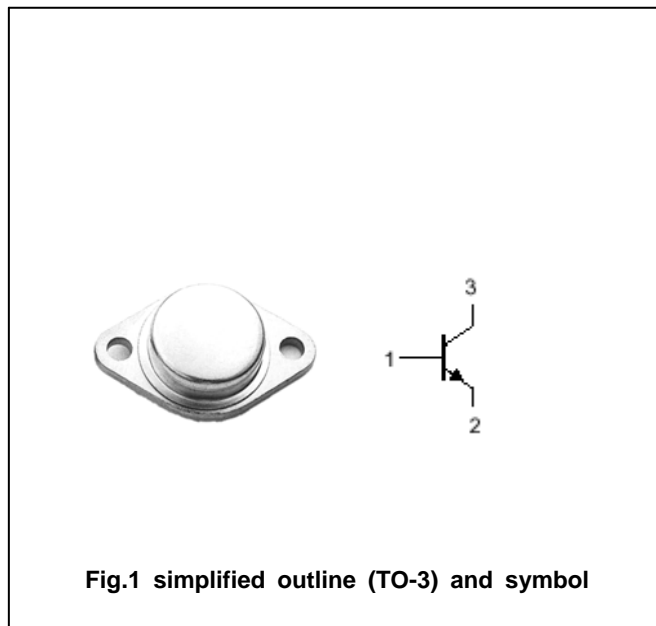


Fig.1 simplified outline (TO-3) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	160	V
V_{CEO}	Collector-emitter voltage	Open base	160	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		12	A
P_C	Collector power dissipation	$T_C = 25^\circ\text{C}$	120	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

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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 =1mA ; R _{BE} =∞	160			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =50 μ A ; I _E =0	160			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =50 μ A ; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =0.5A			1.8	V
V _{BE}	Base-emitter on voltage	I _C =5A ; V _{CE} =5V			1.7	V
I _{CBO}	Collector cut-off current	V _{CB} =160V ; I _E =0			50	μ A
I _{CEO}	Collector cut-off current	V _{CE} =160V ; R _{BE} =∞			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V ; I _C =0			50	μ A
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	60		200	
h _{FE-2}	DC current gain	I _C =7A ; V _{CE} =5V	40			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V ; f=1MHz		300		pF
f _T	Transition frequency	I _C =1A ; V _{CE} =10V ; f=10MHz		50		MHz

PACKAGE OUTLINE

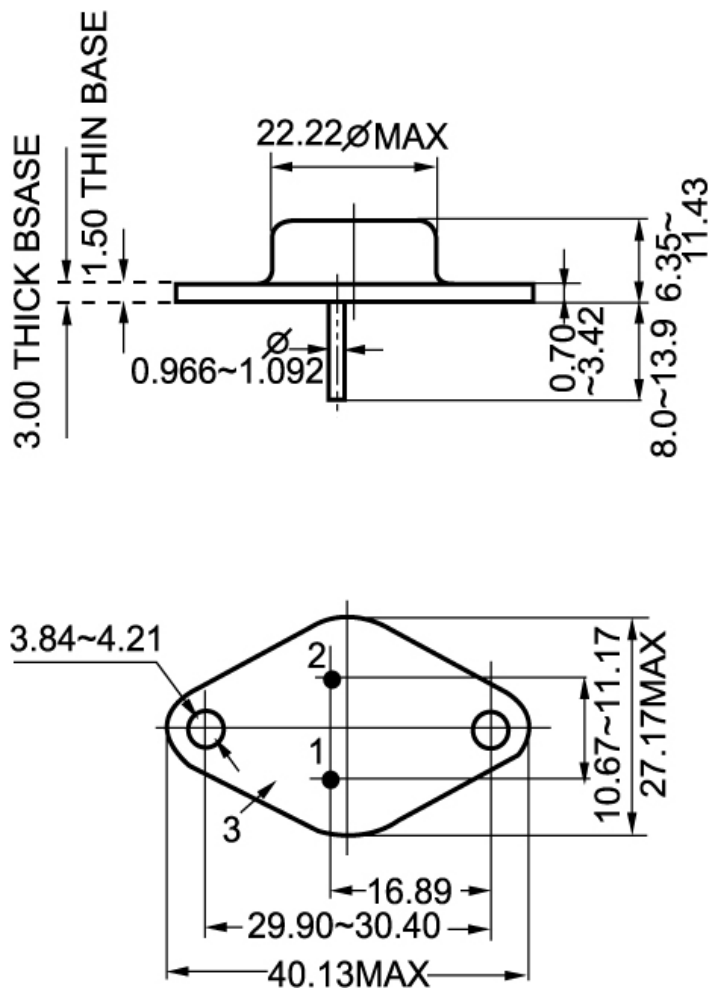


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)