

Silicon NPN Power Transistors

2SC2304

DESCRIPTION

- With TO-3 package
- High speed ,high voltage
- Wide area of safe operation

APPLICATIONS

- For switching regulator application

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

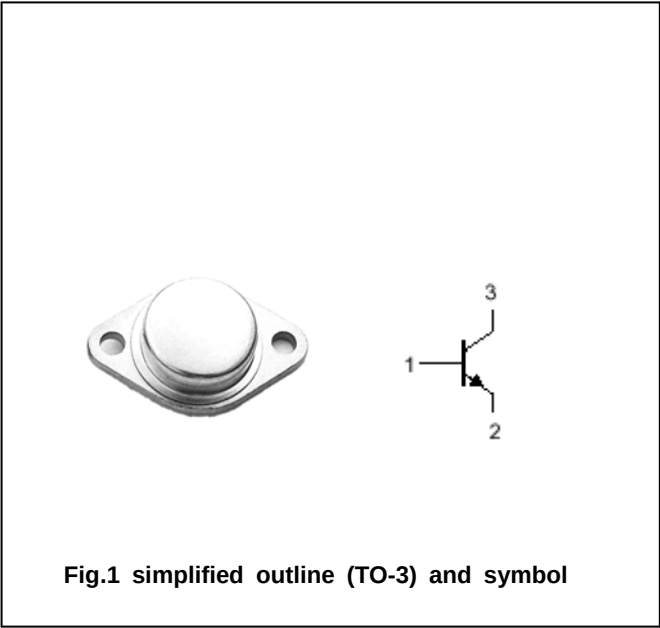


Fig.1 simplified outline (TO-3) and symbol

MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	500	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		12	A
P_T	Total power dissipation	$T_{mb} \leq 25^{\circ}C$	100	W
T_j	Junction temperature		150	$^{\circ}C$
T_{stg}	Storage temperature		-55~150	$^{\circ}C$

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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	400			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	500			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =8A; I _B =1.6A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =8A; I _B =1.6A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =4V	15		50	
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =4V	10			
f _T	Transition frequency	I _C =1A ; V _{CE} =10V		35		MHz

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PACKAGE OUTLINE

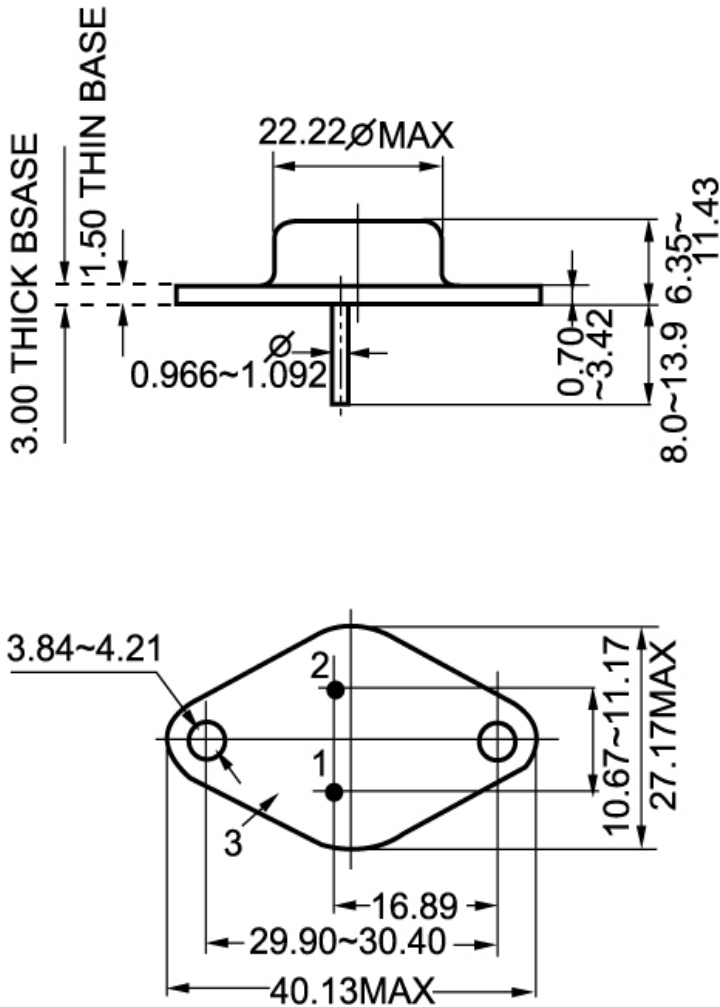


Fig.2 Outline dimensions