

Silicon NPN Power Transistors

2SC1504

DESCRIPTION

With TO-66 package

- Continuous collector current- $I_C=2A$
- Power dissipation - $PD=40W @T_C=25^\circ C$

APPLICATIONS

- High speed switching and linear amplification
- Switching regulators ,converters

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

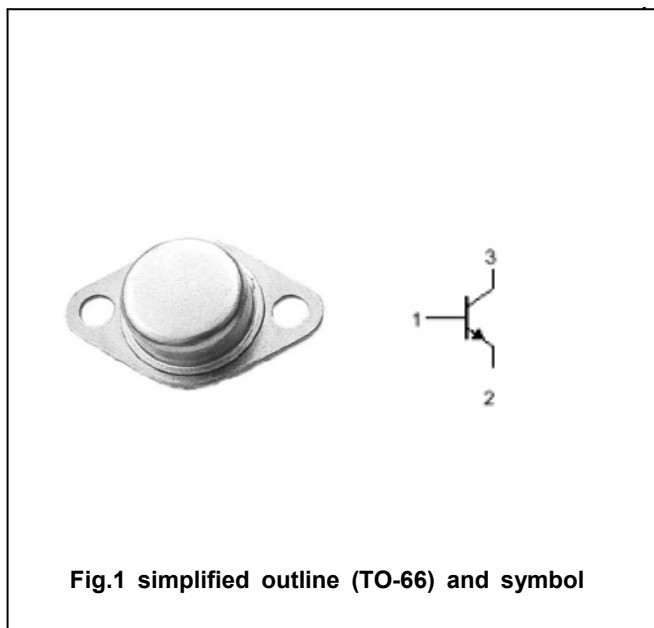


Fig.1 simplified outline (TO-66) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	400	V
V_{CEO}	Collector-emitter voltage	Open base	300	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		2	A
I_{CM}	Collector current-Peak		5	A
I_B	Base current		1	A
P_T	Total power dissipation	$T_C=25^\circ C$	40	W
T_j	Junction temperature		200	$^\circ C$
T_{stg}	Storage temperature		-65~200	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	5.0	$^\circ C/W$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =0.2A ; I _B =0	300			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	6			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =1A ; I _B =0.1A			1.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =1A ; I _B =0.1A			1.5	V
I _{CB0}	Collector cut-off current	V _{CB} =400V ; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V ; I _C =0			0.1	mA
h _{FE}	DC current gain	I _C =1A ; V _{CE} =4V	20			
f _T	Transition frequency	I _C =0.1A ; V _{CE} =10V		10		MHz

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PACKAGE OUTLINE



Fig.2 Outline dimensions