

## Silicon NPN Power Transistors

## 2SC1672

## DESCRIPTION

- With TO-3 package
- High current capability
- Fast switching speed

## APPLICATIONS

- Motor control
- Linear and switching applications

## PINNING(see fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

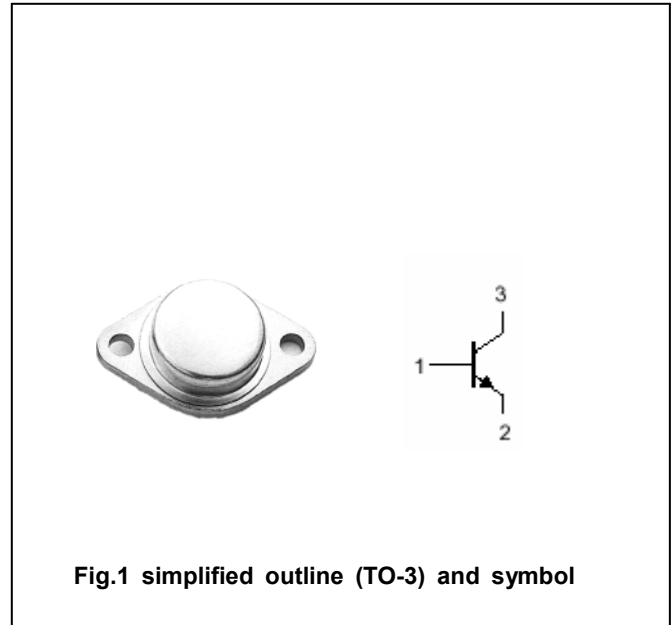


Fig.1 simplified outline (TO-3) and symbol

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	150	V
$V_{CEO}$	Collector-emitter voltage	Open base	120	V
$V_{EBO}$	Emitter-base voltage	Open collector	6	V
$I_C$	Collector current		25	A
$I_{CM}$	Collector current-peak		30	A
$P_T$	Total power dissipation	$T_C=25^\circ\text{C}$	120	W
$T_j$	Junction temperature		175	$^\circ\text{C}$
$T_{stg}$	Storage temperature		-55~175	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.17	$^\circ\text{C}/\text{W}$

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.1A; I <sub>B</sub> =0	120			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA; I <sub>C</sub> =0	6			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =1A			0.6	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =20A; I <sub>B</sub> =2A			1.2	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =20A; I <sub>B</sub> =2A			2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =150V; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V; I <sub>C</sub> =0			0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =13A; V <sub>CE</sub> =2V	20		100	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =20A; V <sub>CE</sub> =4V	10			

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PACKAGE OUTLINE

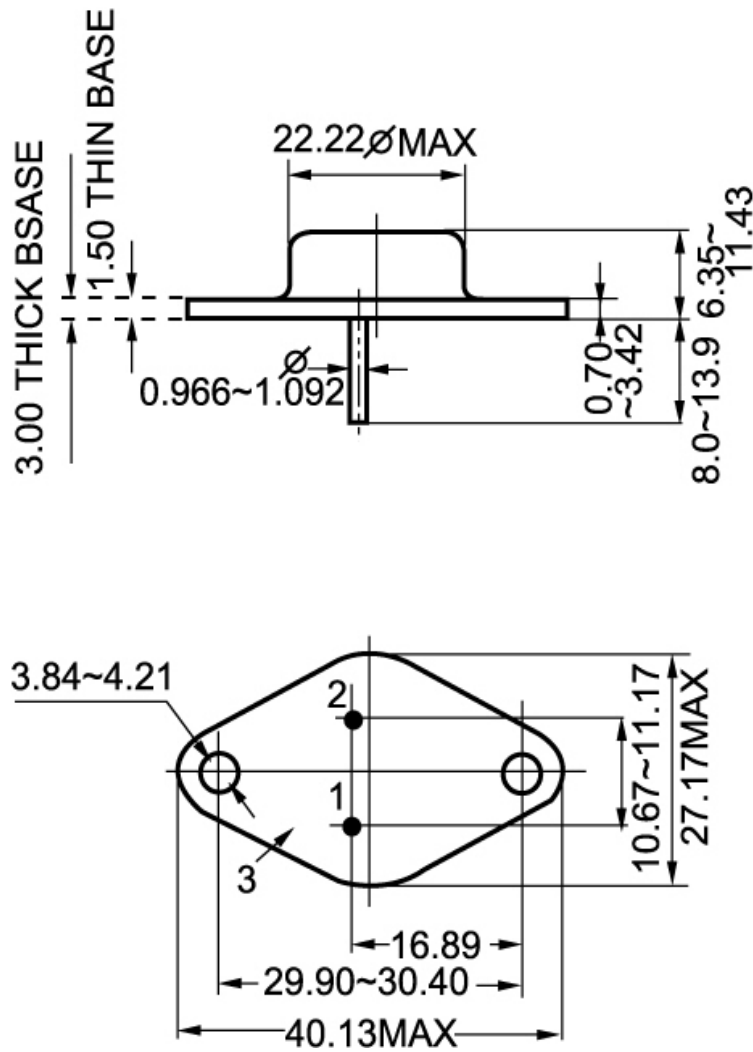


Fig.2 Outline dimensions