

Silicon NPN Power Transistors

3DD7D

DESCRIPTION

- With TO-3 package
- High power dissipation

APPLICATIONS

- power amplifier
- Low-speed switching
- Power regulator

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

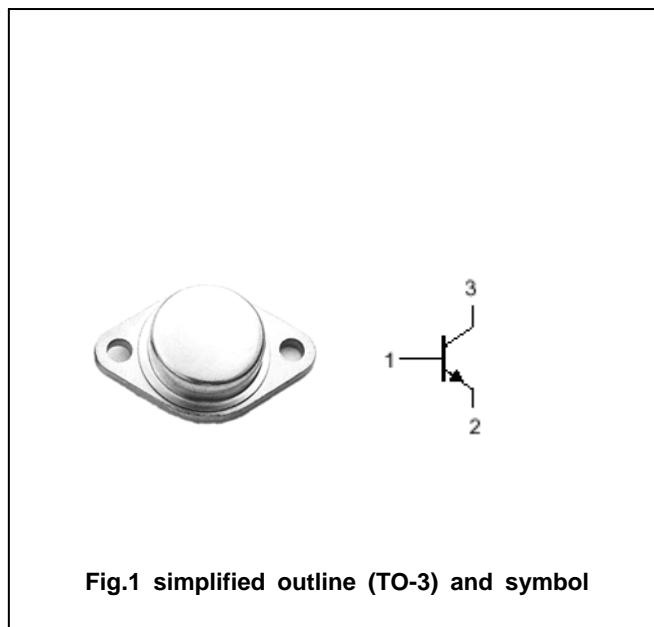


Fig.1 simplified outline (TO-3) and symbol

Absolut maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	250	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		7.5	A
P_C	Collector power dissipation	$T_C=75^\circ\text{C}$	75	W
T_j	Junction temperature		-55~175	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	1.33	$^\circ\text{C}/\text{W}$

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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 =3mA ; I _B =0	200			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =3mA ; I _E =0	250			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =2mA ; I _C =0	5			V
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =3.75A ; I _B =0.38 A			1.2	V
I _{CEO}	Collector cut-off current	V _{CE} =30V ; I _B =0			1.0	mA
h _{FE}	DC current gain	I _C =3.75A ; V _{CE} =10V	15		180	

◆ h_{FE} classifications

红	橙	黄	绿	蓝	紫
15-25	25-40	40-55	55-80	80-120	120-180

PACKAGE OUTLINE

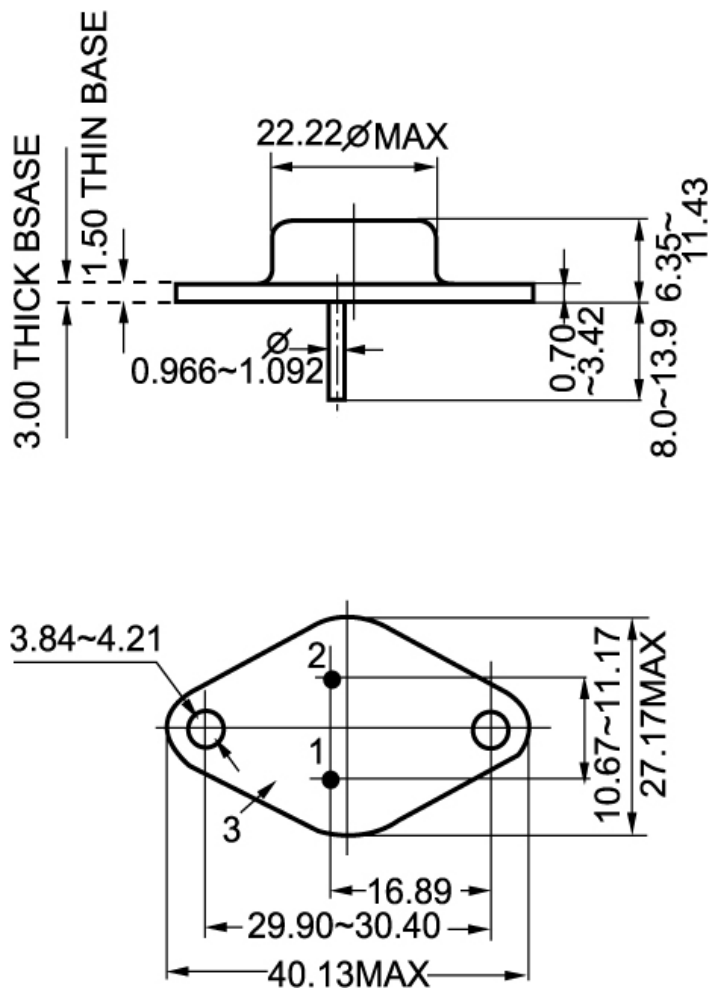


Fig.2 Outline dimensions (unindicated tolerance: $\pm 0.10\text{mm}$)