

Silicon NPN Power Transistors

2N6653

DESCRIPTION

- With TO-3 package
- High voltage capability
- Fast switching speeds
- Low saturation voltage

APPLICATIONS

- Switching regulators
- Inverters
- Solenoid and relay drivers
- Deflection circuits

PINNING (See Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

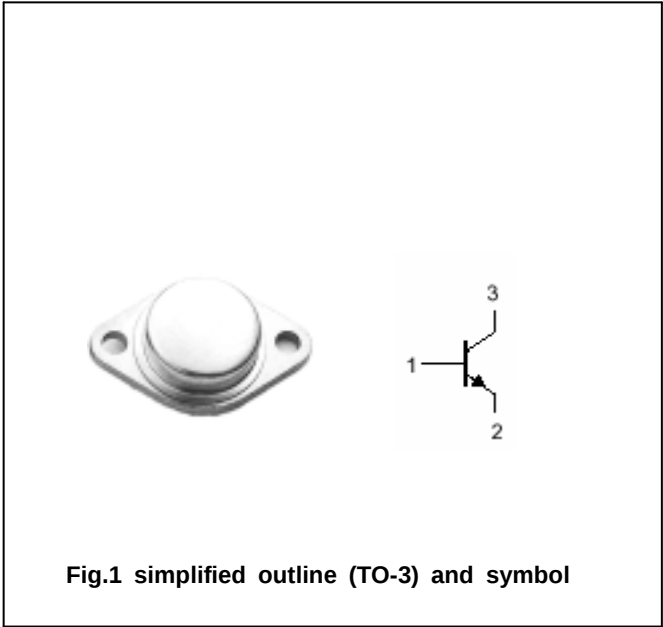


Fig.1 simplified outline (TO-3) and symbol

MAXIMUM RATINGS(Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	350	V
V_{CEO}	Collector-emitter voltage	Open base	300	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current		20	A
I_{CM}	Collector current-peak		30	A
P_T	Total power dissipation	$T_c=25$	150	W
T_j	Junction temperature		200	
T_{stg}	Storage temperature		-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	1.0	/W

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =0.1A ; I _B =0	300			V
V _{(BR)CBO}	Collector-emitter breakdown voltage	I _C =1mA ; I _E =0	350			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =10A; I _B =2A			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =15A; I _B =3A			1.8	V
V _{BEsat}	Base-emitter saturation voltage	I _C =15A; I _B =3A			1.8	V
I _{CEV}	Collector cut-off current	V _{CE} =350V; V _{BE(off)} =-1.5V T _C =150			0.1 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	15		50	
h _{FE-2}	DC current gain	I _C =15A ; V _{CE} =5V	10			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V		15		MHz

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PACKAGE OUTLINE

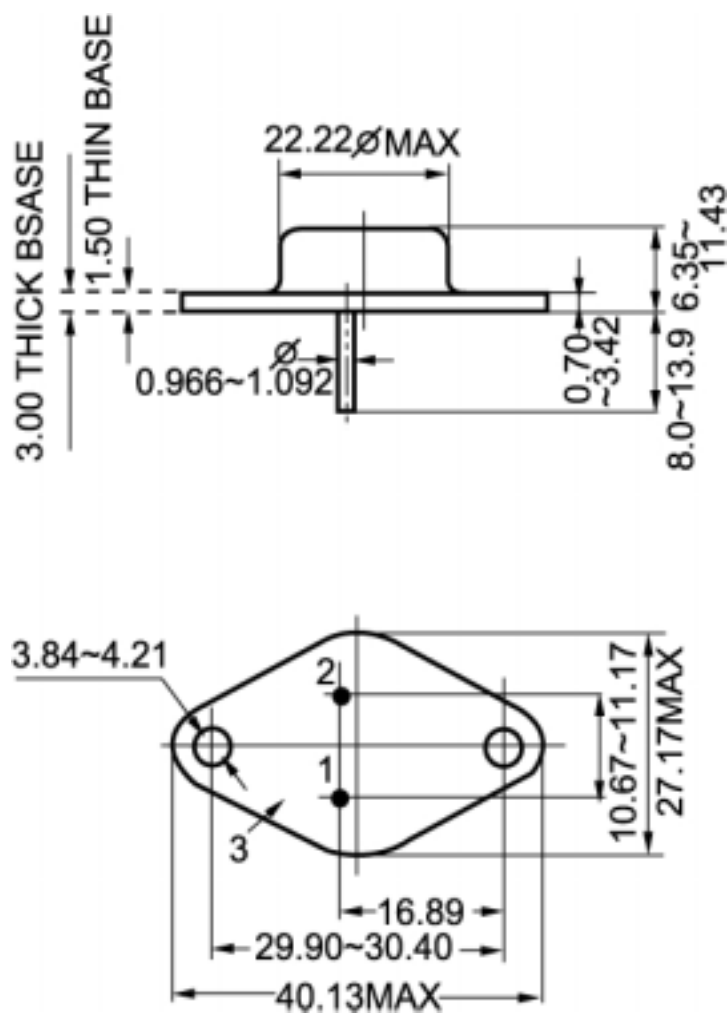


Fig.2 Outline dimensions