

SavantIC Semiconductor

Product Specification

Silicon NPN Power Transistors

2N6688

DESCRIPTION

- With TO-3 package
- Fast switching speed
- Low collector saturation voltage

APPLICATIONS

- For power supplies and other high-voltage switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

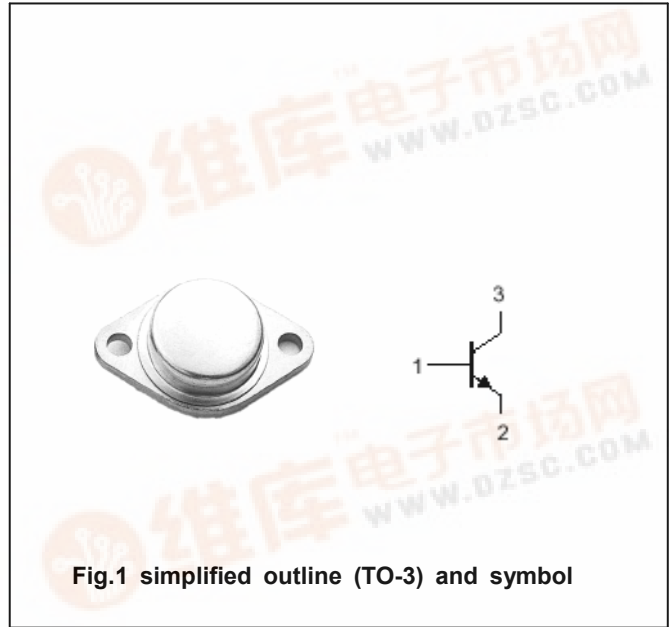


Fig.1 simplified outline (TO-3) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	300	V
V_{CEO}	Collector-emitter voltage	Open base	200	V
V_{EBO}	Emitter-base voltage	Open collector	8	V
I_C	Collector current		20	A
I_{CM}	Collector current-peak		50	A
I_B	Base current		8	A
P_C	Collector power dissipation	$T_C = 25\square$	200	W
T_j	Junction temperature		200	$\square$
T_{stg}	Storage temperature		-65~200	$\square$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	VALUE	UNIT
$R_{th\ j-c}$	Thermal resistance junction to case	0.875	$\square/W$

Silicon NPN Power Transistors

2N6688

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	200			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =20A; I _B =2A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =20A; I _B =2A			1.8	V
I _{CEV}	Collector cut-off current	V _{CE} =300V; V _{BE} =-1.5V			50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =8V; I _C =0			100	μA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =2V	25			
h _{FE-2}	DC current gain	I _C =10A ; V _{CE} =2V	20		80	
h _{FE-3}	DC current gain	I _C =20A ; V _{CE} =2V	15			
f _T	Transition frequency	I _C =1A ; V _{CE} =10V	20		100	MHz

Silicon NPN Power Transistors

2N6688

PACKAGE OUTLINE

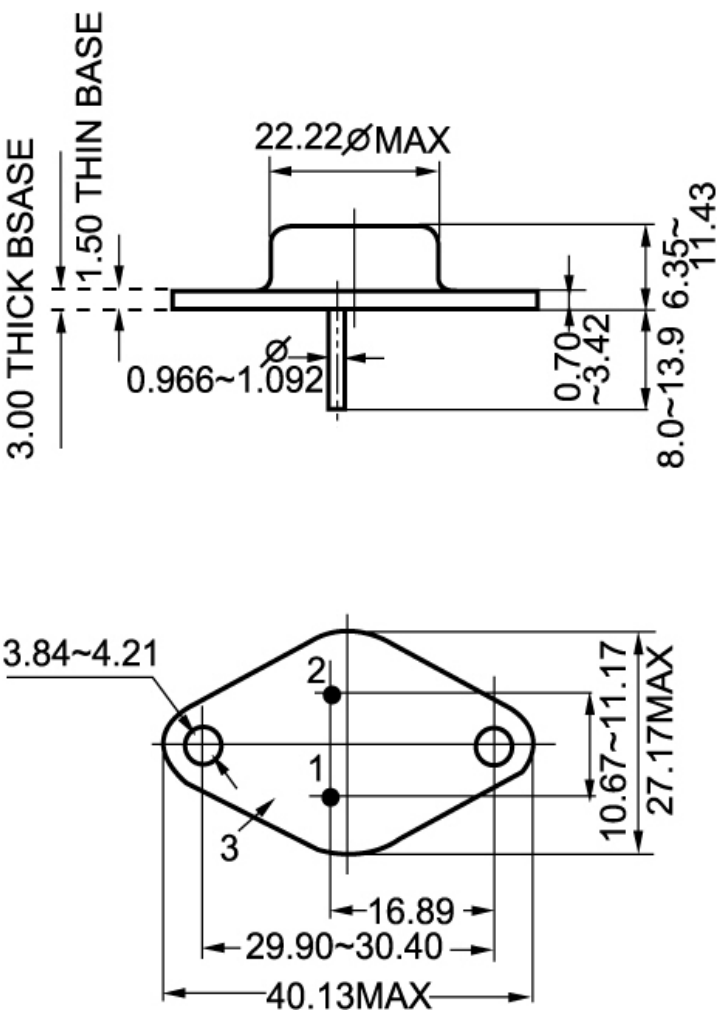


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)