

Silicon NPN Power Transistors

2SD797

DESCRIPTION

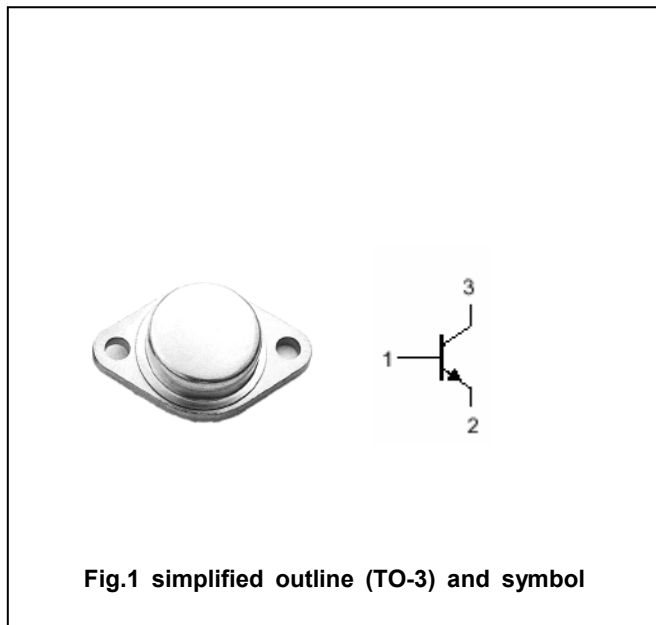
- With TO-3 package
- High current capability
- High power dissipation

APPLICATIONS

- High power amplifier applications
- High power switching applications
- DC-DC converter applications
- Regulator applications

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	80	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		30	A
I_B	Base current		8	A
P_C	Collector power dissipation	$T_C = 25 \square$	200	W
T_j	Junction temperature		175	\square
T_{stg}	Storage temperature		-65~175	\square

Silicon NPN Power Transistors

2SD797

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA ; I _B =0	80			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =15A; I _B =3A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =15A; I _B =3A			2.5	V
I _{CBO}	Collector cut-off current	V _{CB} =100V; I _E =0			0.1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =7V; I _C =0			0.1	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	60		200	
h _{FE-2}	DC current gain	I _C =15A ; V _{CE} =5V	10			
C _{OB}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1.0MHz		400		pF
f _T	Transition frequency	I _C =1A ; V _{CE} =5V		1.5		MHz

Switching times

t _{on}	Turn-on time	R _L =10Ω; I _{B1} =-I _{B2} =0.5A; V _{CC} =50V		2.5		μs
t _{stg}	Storage time			6.0		μs
t _f	Fall time			1.5		μs

PACKAGE OUTLINE

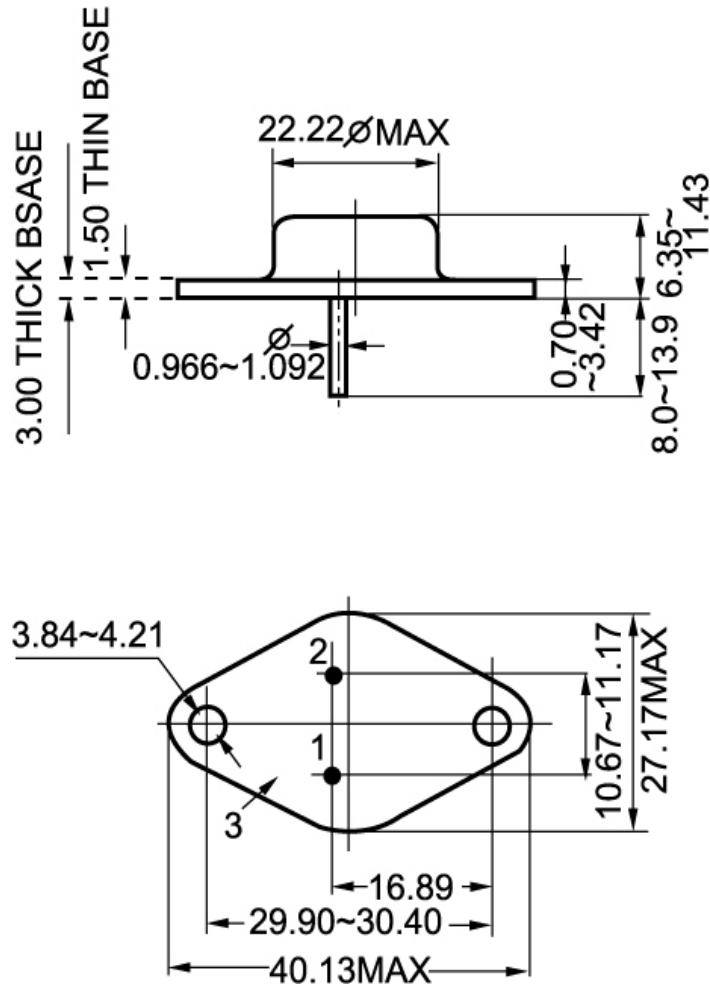


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)