

Silicon NPN Power Transistors

2SC3725

DESCRIPTION

- With TO-3PN package
- High voltage ,high speed switching
- High reliability

APPLICATIONS

- Switching regulators
- Ultrasonic generators
- High frequency inverters
- General purpose power amplifiers

PINNING

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

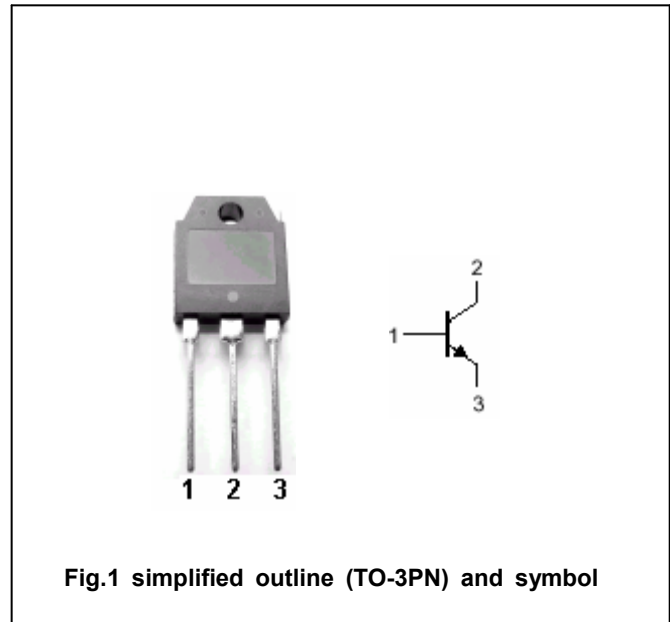


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	450	V
V_{CEO}	Collector-emitter voltage	Open base	400	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current		15	A
I_B	Base current		5	A
P_C	Collector power dissipation	$T_C = 25\square$	80	W
T_j	Junction temperature		150	\square
T_{stg}	Storage temperature		-55~150	\square

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction case	1.56	\square/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 =10mA ; I _B =0	400			V
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =1mA ; I _E =0	450			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA ; I _C =0	10			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =6A ; I _B =1.2A			0.8	V
V _{BEsat}	Base-emitter saturation voltage	I _C =6A ; I _B =1.2A			1.2	V
I _{CBO}	Collector cut-off current	V _{CB} =450V ; I _E =0			100	μA
I _{EBO}	Emitter cut-off current	V _{EB} =10V ; I _C =0			100	μA
h _{FE}	DC current gain	I _C =6A ; V _{CE} =5V	10			

Switching times

t _{on}	Turn-on time	I _C =6A ; I _{B1} =2A I _{B2} =-4A ; R _L =15Ω			1.0	μs
t _s	Storage time				2.5	μs
t _f	Fall time				0.5	μs

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PACKAGE OUTLINE

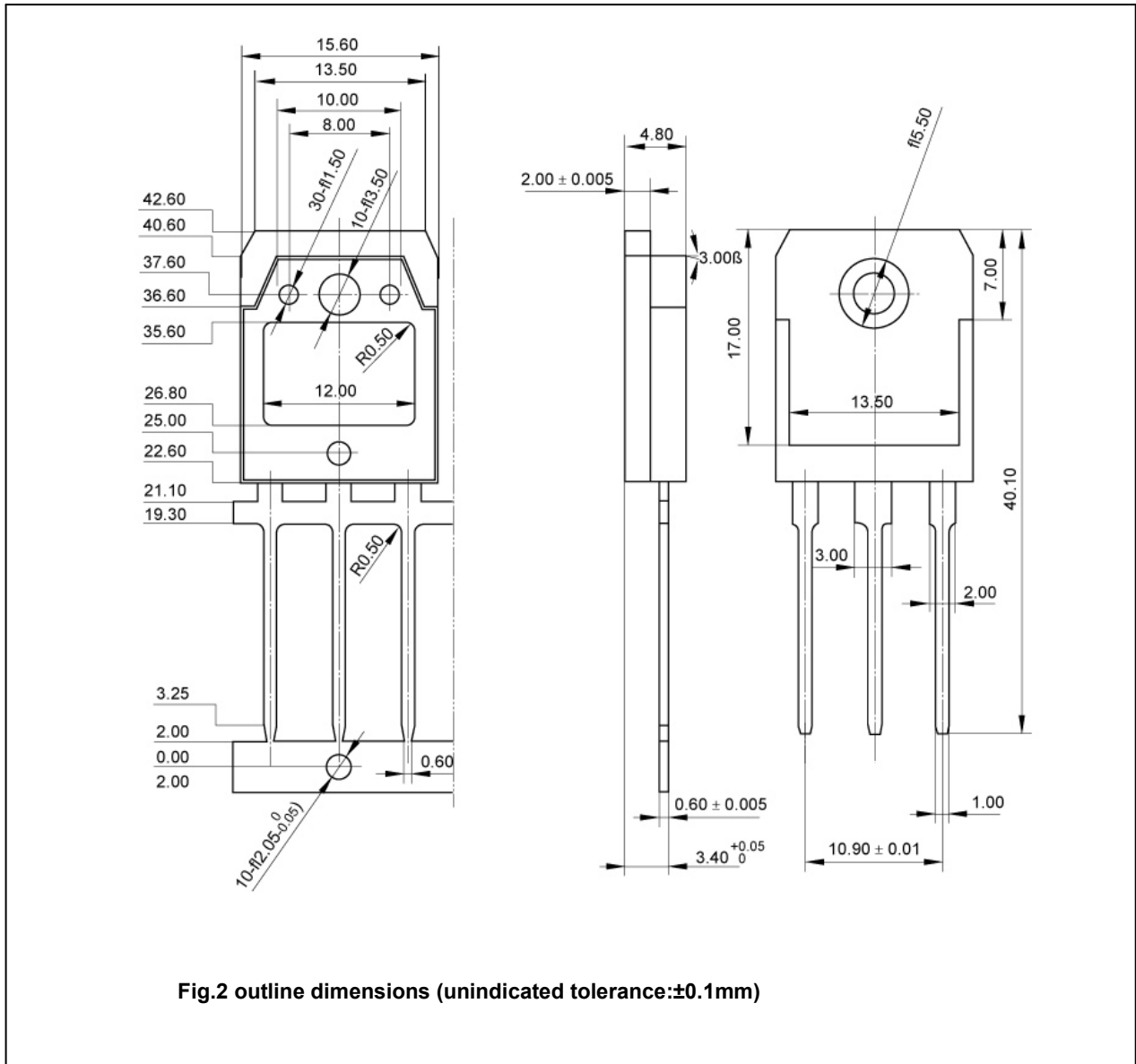


Fig.2 outline dimensions (unindicated tolerance: ± 0.1 mm)