

Silicon NPN Power Transistors

BUV48B

DESCRIPTION

- With TO-3PN package.
- High voltage.
- Fast switching speed.

APPLICATIONS

- Designed for switching and industrial applications

PINNING

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

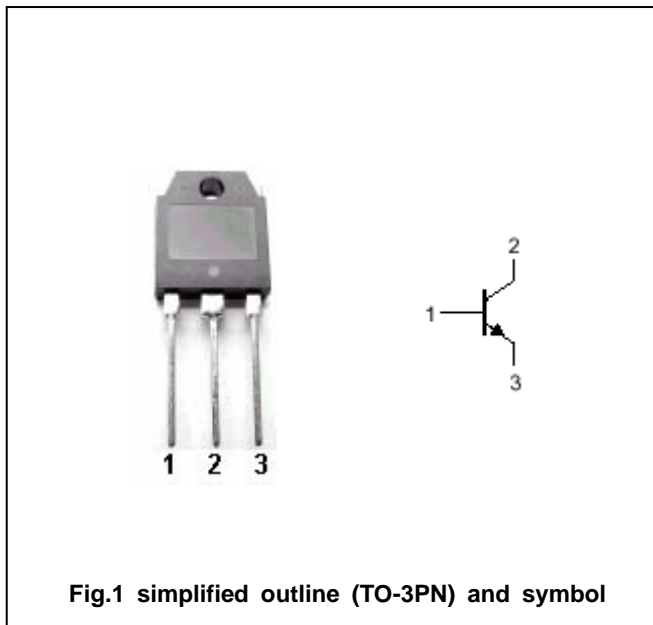


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25 °C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1200	V
V_{CEO}	Collector-emitter voltage	Open base	600	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		15	A
I_{CM}	Collector current -peak	$t_p < 5ms$	30	A
I_B	Base current		4	A
I_{BM}	Base current-peak	$t_p < 5ms$	20	A
P_T	Total power dissipation	$T_C = 25$	125	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

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

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Emitter-base sustaining voltage	I _C =100mA; I _B =0	600			V
V _{CEsat-1}	Collector-emitter saturation voltage	I _C =6A; I _B =1.5A			1.5	V
V _{CEsat-2}	Collector-emitter saturation voltage	I _C =10A; I _B =4A			3	V
V _{BEsat-1}	Base-emitter saturation voltage	I _C =6A; I _B =1.5A			1.5	V
V _{BEsat-2}	Base-emitter saturation voltage	I _C =10A; I _B =4A			2	V
I _{CES}	Collector cut-off current	V _{CE} =1200V; V _{BE} =0 T=125 ° C			0.5 3	mA
I _{CEO}	Collector cut-off current	V _{CE} =600V; I _C =0			1	mA
I _{EBO}	Emitter cut-off current	V _{EB} =6V; I _C =0			1	mA
h _{FE}	DC current gain	I _C =1A; V _{CE} =5V	15		50	

Switching times:

t _{on}	Turn-on time	I _C =6A; I _{B1} =- I _{B2} =1.5A V _{CC} =250V		0.5	1.0	μs
t _s	Storage time			1.5	3.0	μs
t _f	Fall time			0.2	0.7	μs

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PACKAGE OUTLINE

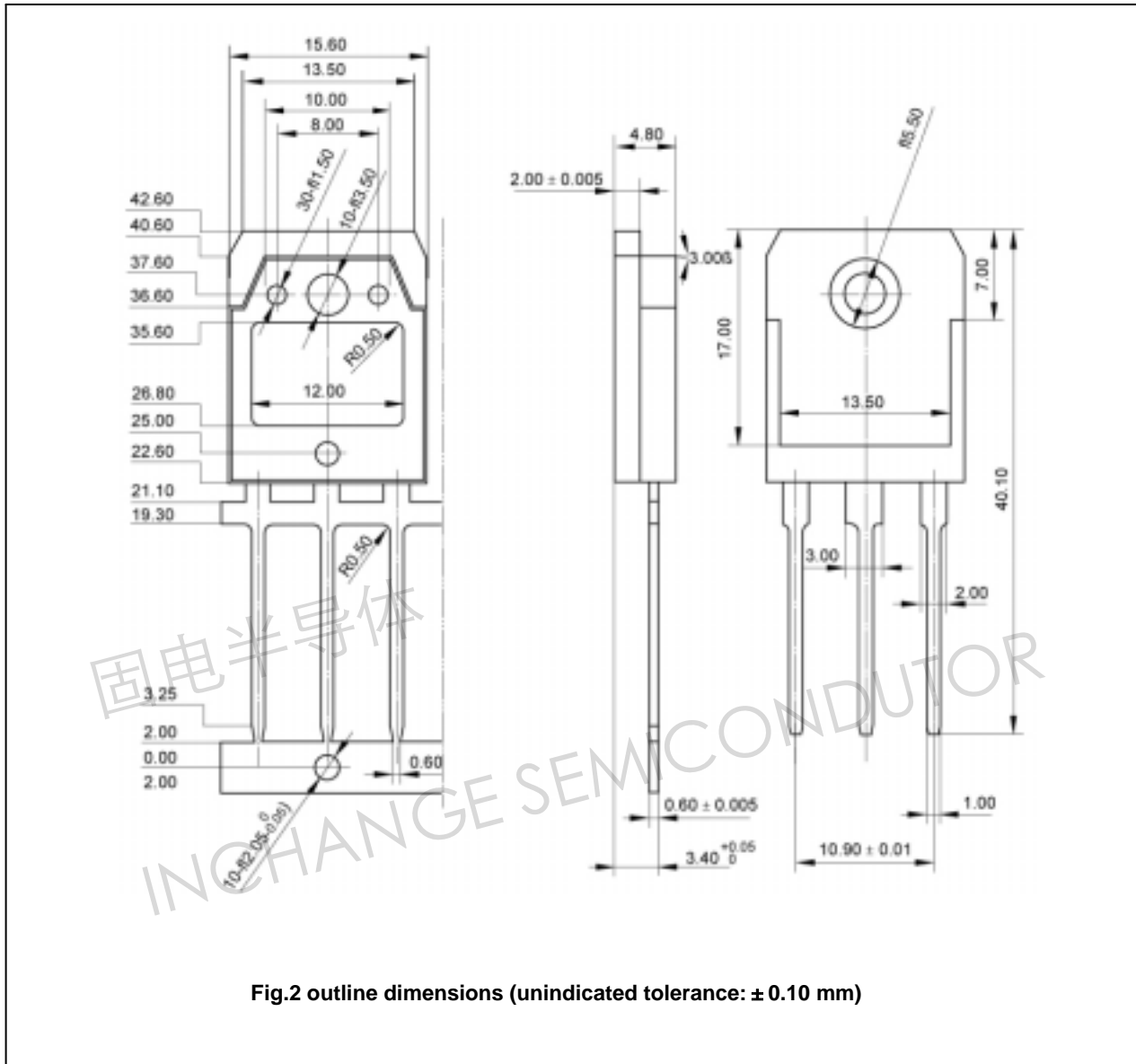


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)