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

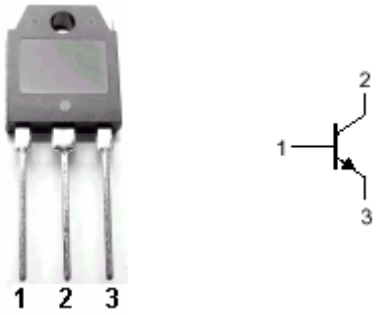

Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings (Ta=25□)

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
$R_{th\ j\text{-}case}$	Thermal resistance junction case	1.0	□/W

CHARACTERISTICS

Tj=25□ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	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

PACKAGE OUTLINE

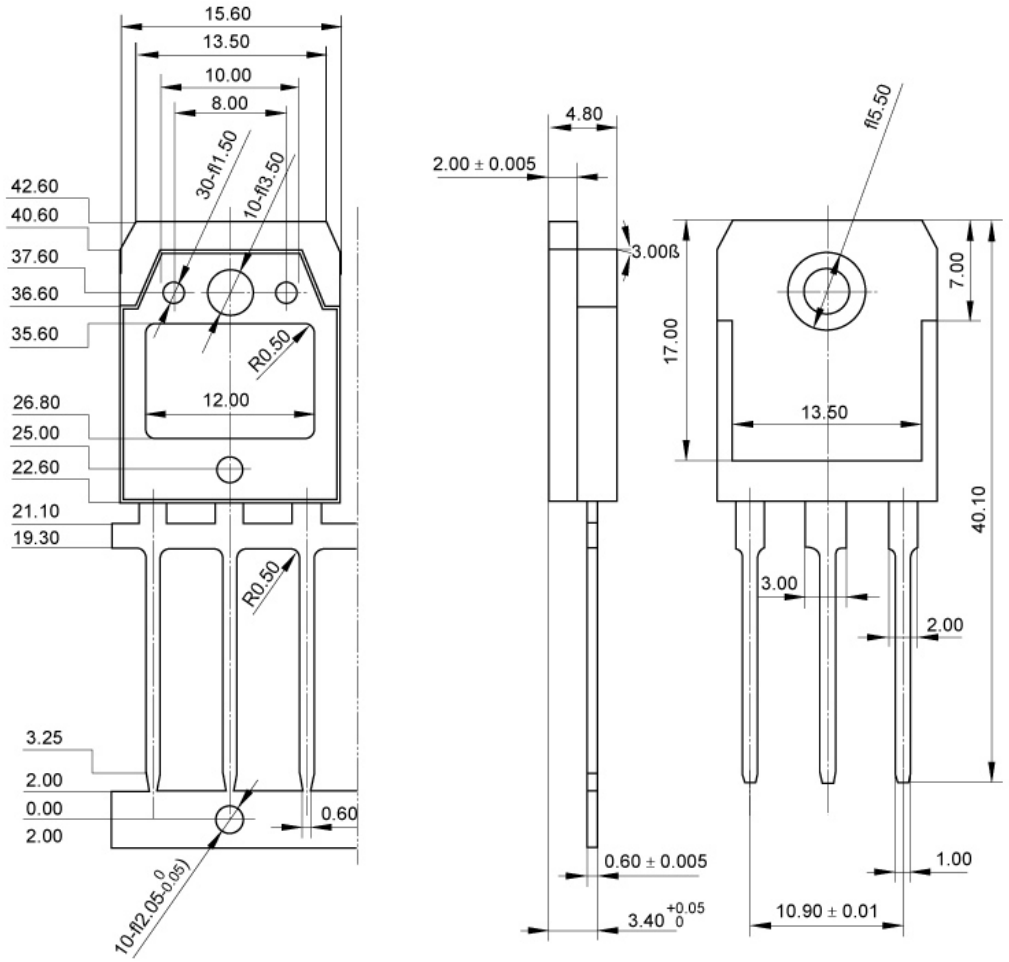

Fig.2 outline dimensions (unindicated tolerance:±0.10 mm)