

Silicon NPN Power Transistors

BUH417D

DESCRIPTION

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- With TO-3PML package
- High voltage
- High speed switching
- Built-in damper diode

APPLICATIONS

- Switching power supply for TV's and monitors

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

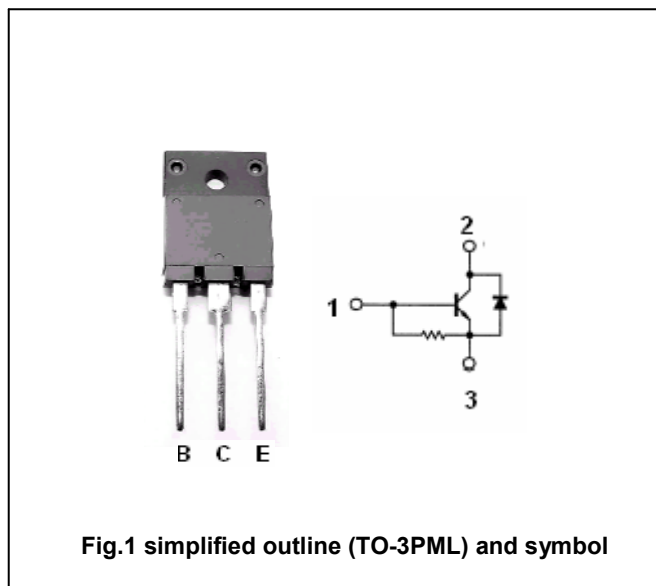


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1500	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		7	A
I_{CM}	Collector current -peak	$t_p < 5\text{ms}$	12	A
I_B	Base current (DC)		4	A
I_{BM}	Base current -peak	$t_p < 5\text{ms}$	7	A
P_{tot}	Total power dissipation	$T_C=25^\circ\text{C}$	55	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-65~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-emitter sustaining voltage	I _C =100mA ; I _B =0	700			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A ; I _B =1A			1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A ; I _B =1A			1.3	V
I _{CES}	Collector cut-off current	V _{CE} =1700V; V _{BE} =0 T _j =125°C			1.0 2.0	mA
I _{EBO}	Emitter cut-off current	V _{EB} =5V; I _C =0			200	mA
h _{FE-1}	DC current gain	I _C =1A ; V _{CE} =5V	8		36	
h _{FE-2}	DC current gain	I _C =4A ; V _{CE} =5V	6			
V _F	Diode forward voltage	I _F =4A			2	V

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal resistance from junction to case	2.27	°C/W

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PACKAGE OUTLINE

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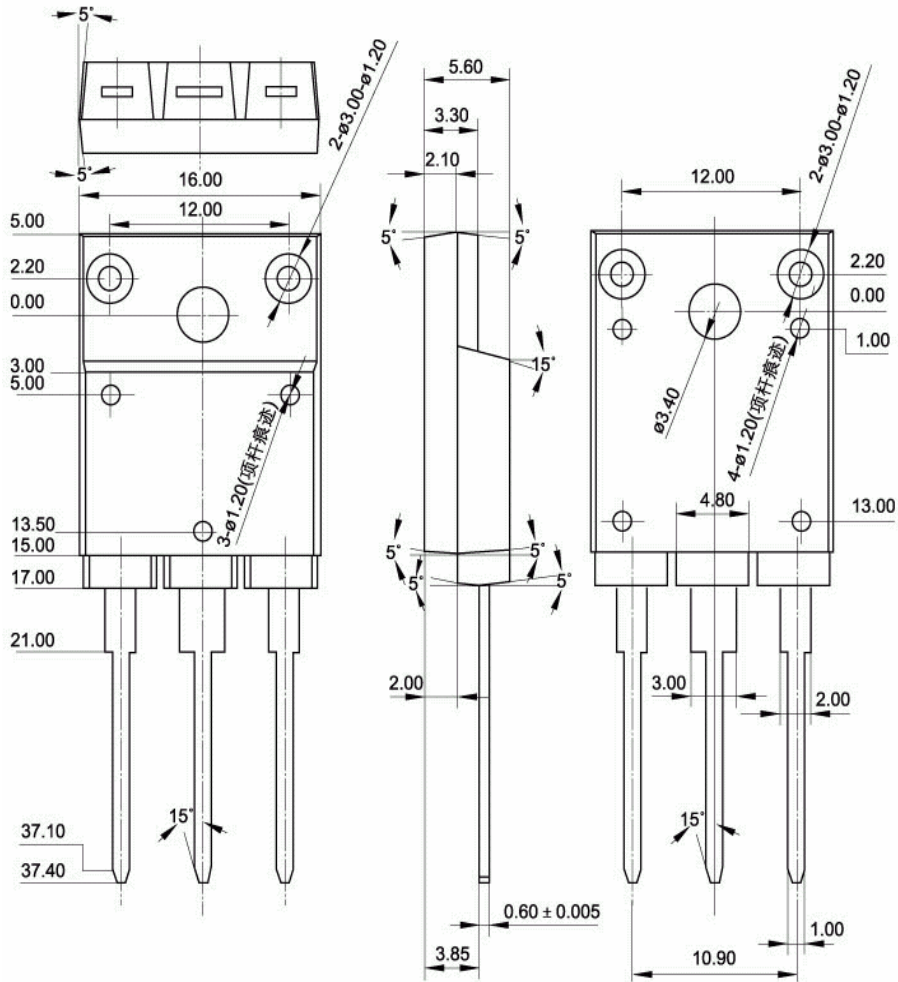


Fig.2 Outline dimensions