

SPTECH Product Specification

SPTECH Silicon NPN Power Transistors

BUH517

DESCRIPTION

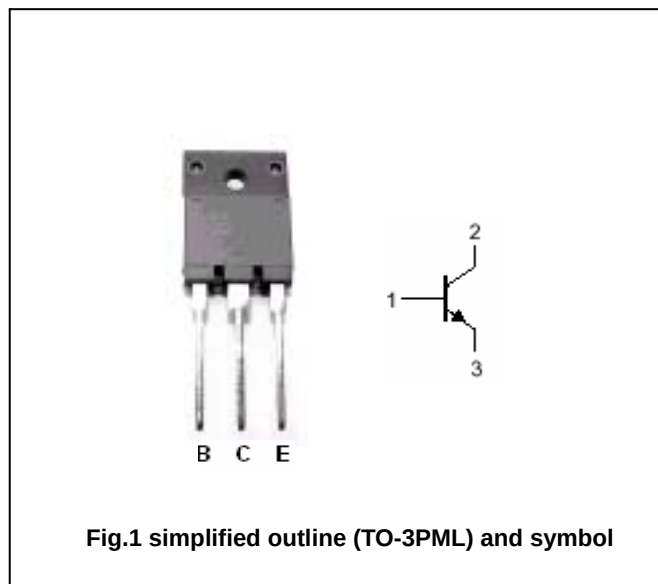
- With TO-3PML package
- High voltage,high speed
- Low collector saturation voltage

APPLICATIONS

- Horizontal deflection stage in standard and high resolution displays for TV's and monitors.
- Switching power supplies for TV's and monitors.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	1700	V
V_{CEO}	Collector-emitter voltage	Open base	700	V
V_{EBO}	Emitter-base voltage	Open collector	10	V
I_C	Collector current (DC)		8	A
I_{CM}	Collector current (Pulse)		15	A
I_B	Base current (DC)		5	A
I_{BM}	Base current (Pulse)		8	A
P_{tot}	Total power dissipation	$T_C=25^{\circ}\text{C}$	60	W
T_j	Operating junction temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage temperature		-65~150	$^{\circ}\text{C}$

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CHARACTERISTICS

 $T_j=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEQ(SUS)}$	Collector-emitter sustaining voltage	$I_C=100\text{mA}$; $I_B=0$	700			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\text{mA}$; $I_C=0$	10			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=5\text{A}$; $I_B=1.25\text{A}$			1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=5\text{A}$; $I_B=1.25\text{A}$			1.3	V
I_{CES}	Collector cut-off current	$V_{CE}=1700\text{V}$; $V_{BE}=0$ $T_j=125^{\circ}\text{C}$			1.0 2.0	mA
I_{EBO}	Emitter cut-off current	$V_{EB}=5\text{V}$; $I_C=0$			100	μA
h_{FE}	DC current gain	$I_C=5\text{A}$; $V_{CE}=5\text{V}$	6			

Switching times

t_s	Storage time	$I_C=5\text{A}$; $I_{B1}=1.25\text{A}$; $I_{B2}=2.5\text{A}$; $V_{CC}=400\text{V}$		2.7	3.9	μs
t_f	Fall time			190	280	ns

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance from junction to case	2.08	$^{\circ}\text{C/W}$

PACKAGE OUTLINE

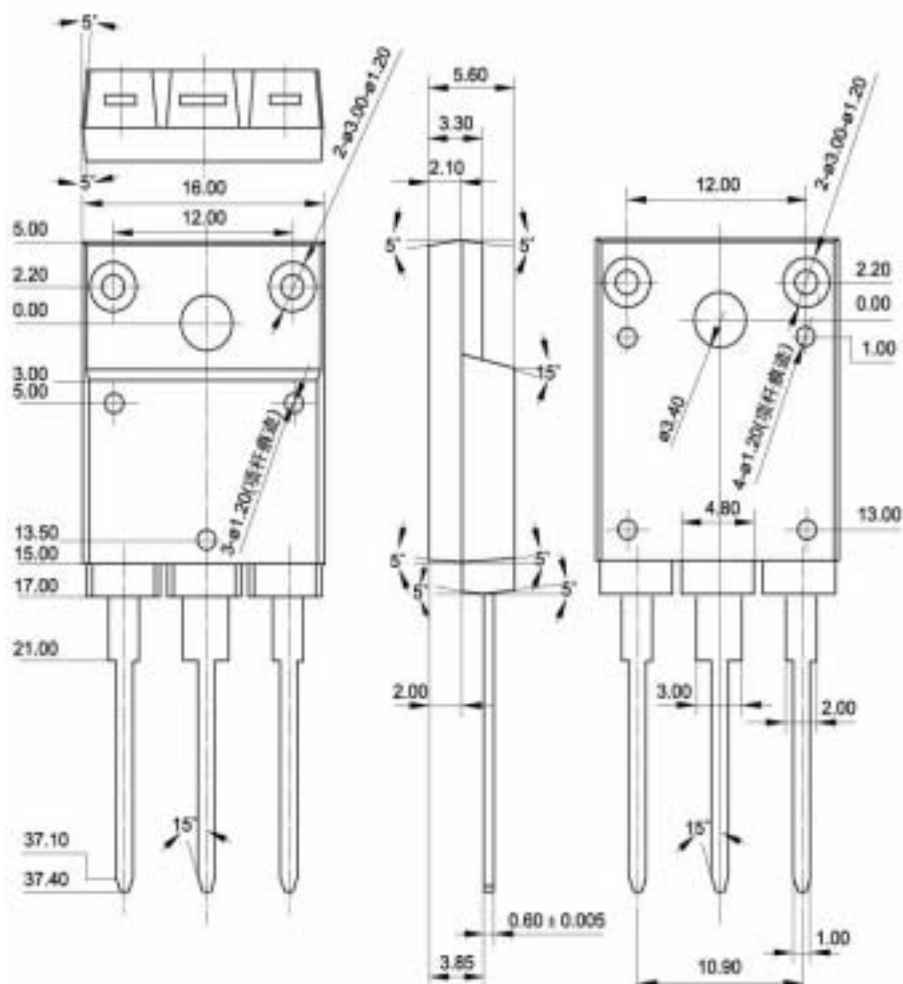


Fig.2 Outline dimensions