

Silicon NPN Power Transistors

BUH1015HI

DESCRIPTION

- With TO-3PML package.
- High voltage.
- High switching speed.

APPLICATIONS

- Horizontal deflection for colour TV and monitors.

PINNING

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

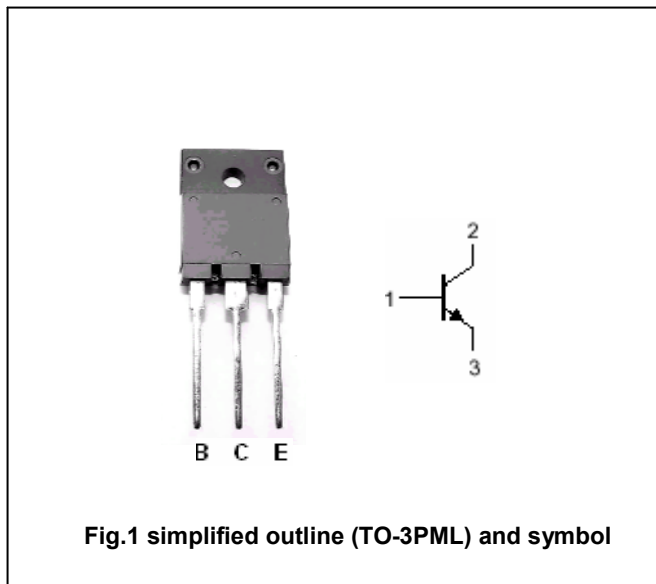


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings (Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	1500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	700	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	10	V
I <sub>C</sub>	Collector current (DC)		14	A
I <sub>CM</sub>	Collector current -peak	t <sub>p</sub> <5ms	18	A
I <sub>B</sub>	Base current		8	A
I <sub>BM</sub>	Base current -peak	t <sub>p</sub> <5ms	11	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	70	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0	10			V
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA; I <sub>B</sub> =0	700			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A			1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A			1.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; V <sub>BE</sub> =0 T <sub>j</sub> =125°C			0.2 2	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10A; V <sub>CE</sub> =5V T <sub>j</sub> =100°C	7 5		14	

Switching times resistive load

t <sub>s</sub>	Storage time	I <sub>C</sub> =10A; I <sub>B1</sub> =2A; I <sub>B2</sub> =-6A; V <sub>CC</sub> =400V		1.5		μs
t <sub>f</sub>	Fall time			110		ns

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-case</sub>	Thermal resistance junction case	1.8	°C/W

