

Silicon NPN Power Transistors

BU508DX

DESCRIPTION

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

APPLICATIONS

- For use in horizontal deflection circuits of colour TV receivers.

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

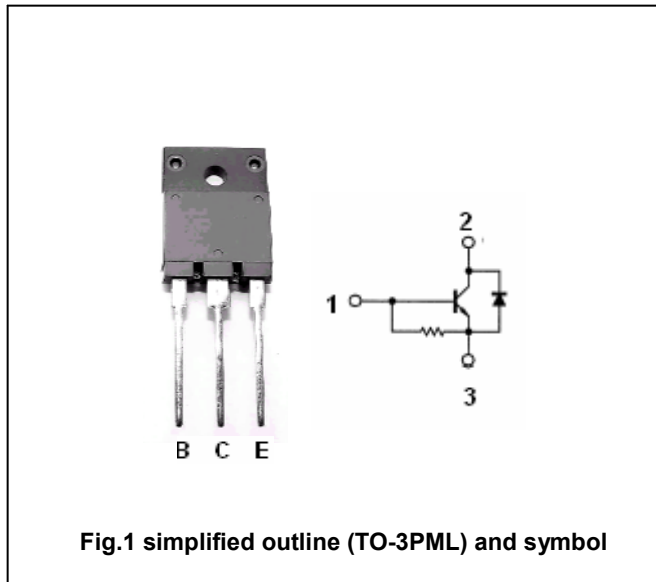


Fig.1 simplified outline (TO-3PML) and symbol

ABSOLUTE MAXIMUM RATINGS( $T_C=25^\circ C$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	V
$I_C$	Collector current (DC)		8	A
$I_{CP}$	Collector current (Pulse)		15	A
$I_B$	Base current (DC)		4	A
$I_{BM}$	Base current (Pulse)		6	A
$P_{tot}$	Total power dissipation	$T_C=25^\circ C$	45	W
$T_j$	Junction temperature		150	$^\circ C$
$T_{stg}$	Storage temperature		-65~150	$^\circ C$

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## CHARACTERISTICS

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

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =100mA ; I <sub>B</sub> =0, L=25mH	700			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =1.6A			1.0	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =1.6A			1.3	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			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5.0V; I <sub>C</sub> =0			300	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.5A ; V <sub>CE</sub> =5V	10		30	
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =4.5A		1.6	2.0	V
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =0.1A ; V <sub>CE</sub> =5V		7		MHz
C <sub>OB</sub>	Output capacitance	V <sub>CB</sub> =10V; I <sub>E</sub> =0; f=1.0MHz		125		pF

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PACKAGE OUTLINE

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Fig.2 Outline dimensions