

**Inchange Semiconductor**

**Product Specification**

**Silicon NPN Power Transistors**

**2SD2300**

**DESCRIPTION**

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

**APPLICATIONS**

- For color TV horizontal output deflection applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

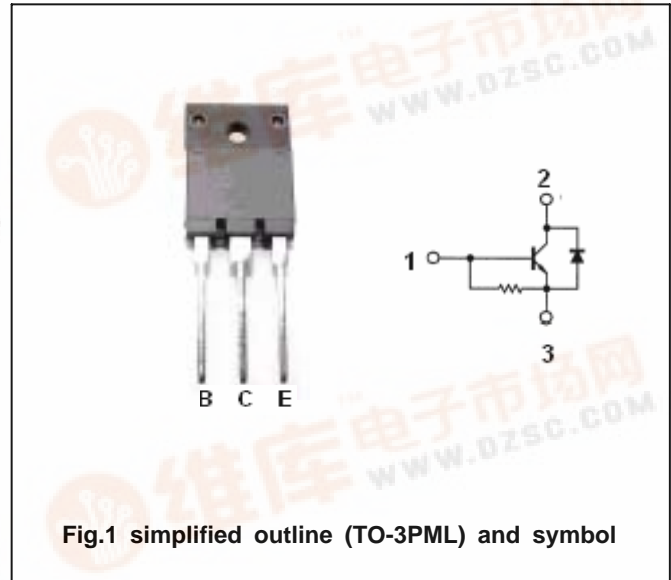


Fig.1 simplified outline (TO-3PML) and symbol

**Absolute maximum ratings( $T_a=25$  )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{EBO}$	Emitter-base voltage	Open collector	6	V
$I_C$	Collector current		5	A
$I_{CM}$	Collector current-peak		6	A
$I_{C(surge)}$	Collector surge current		16	A
$P_C$	Collector power dissipation	$T_C=25$	50	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## 2SD2300

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =350mA, I <sub>C</sub> =0	6			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A; I <sub>B</sub> =1.2A			5.0	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A; I <sub>B</sub> =1.2A			1.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; R <sub>BE</sub> =0			500	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =5V			20	
t <sub>f</sub>	Fall time	I <sub>C</sub> =4A; I <sub>B1</sub> =0.8A; I <sub>B2</sub> = -1.5A			1.0	μs
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =6A			3.0	V

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PACKAGE OUTLINE

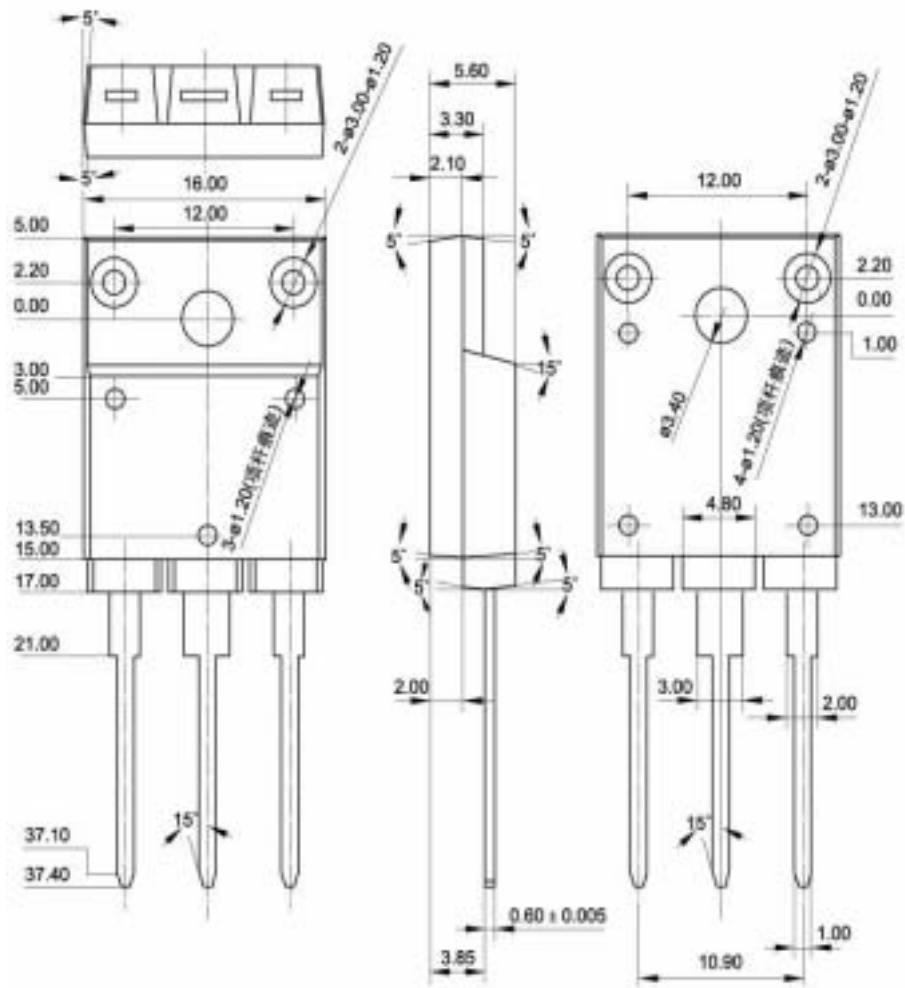


Fig.2 outline dimensions (unindicated tolerance: ± 0.10 mm)