

## Silicon NPN Power Transistors

2SD1654

## DESCRIPTION

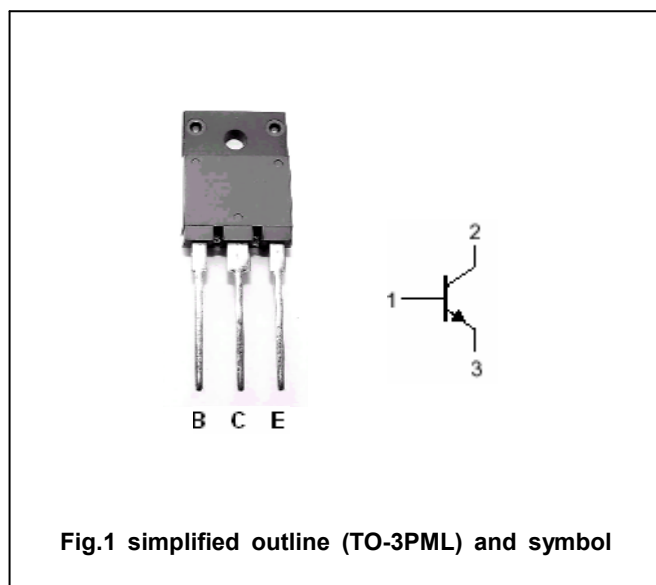
- With TO-3PML package
- High voltage;high speed
- High reliability.

## APPLICATIONS

- For color TV horizontal deflection output applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

Absolute maximum ratings( $T_a=25^\circ$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	800	V
$V_{EBO}$	Emitter-base voltage	Open collector	6	V
$I_C$	Collector current		3.5	A
$I_{CM}$	Collector current-peak		10	A
$P_C$	Collector power dissipation	$T_C=25^\circ$	50	W
$T_j$	Junction temperature		150	$^\circ$
$T_{stg}$	Storage temperature		-55~150	$^\circ$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =0.1A; R <sub>BE</sub> =∞	800			
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =5mA; I <sub>E</sub> =0	1500			
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2.5A; I <sub>B</sub> =0.8A			8.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2.5A; I <sub>B</sub> =0.8A			1.5	V
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =800V; I <sub>E</sub> =0			10	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =0.5 A ; V <sub>CE</sub> =5V	8			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5 A ; V <sub>CE</sub> =10V		3		MHz
t <sub>f</sub>	Fall time	I <sub>C</sub> =3A; I <sub>B1</sub> =0.8A; I <sub>B2</sub> =-1.6A V <sub>CC</sub> =200V; R <sub>L</sub> =66.7Ω			0.7	μs

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PACKAGE OUTLINE

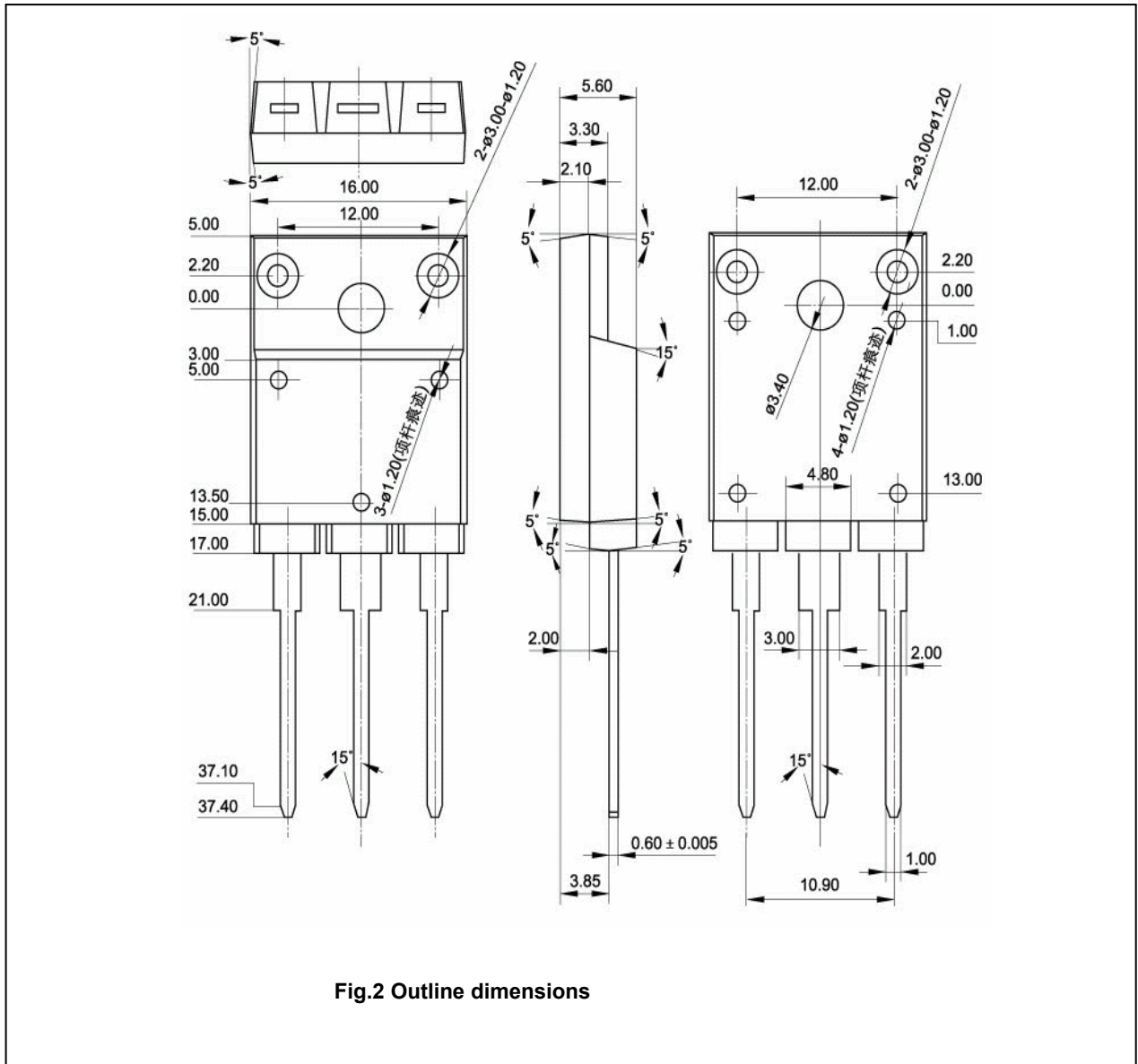


Fig.2 Outline dimensions