

## Silicon PNP Darlington Power Transistors

2SB1587

## DESCRIPTION

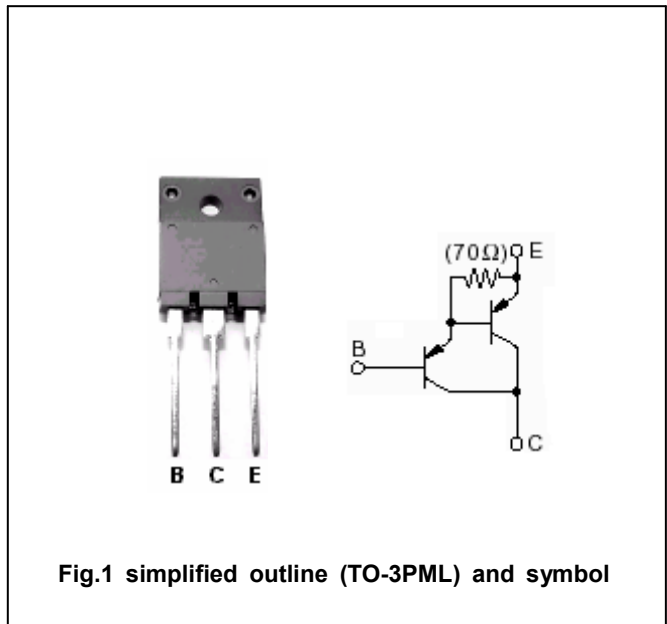
- With TO-3PML package
- Complement to type 2SD2438

## APPLICATIONS

- Audio, Series Regulator and General Purpose

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-160	V
$V_{CEO}$	Collector-emitter voltage	Open base	-150	V
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-8	A
$I_B$	Base current		-1	A
$P_C$	Collector power dissipation	$T_c=25^\circ$	75	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> =-30mA; I <sub>B</sub> =0	-150			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-6 A; I <sub>B</sub> =-6m A			-2.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-6 A; I <sub>B</sub> =-6m A			-3.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-160V; I <sub>E</sub> =0			-100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-100	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-6A ; V <sub>CE</sub> =-4V	5000			
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-1A ; V <sub>CE</sub> =-12V		65		MHz
C <sub>OB</sub>	Output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		160		pF

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-6A; R <sub>L</sub> =10Ω I <sub>B1</sub> =-I <sub>B2</sub> =-6mA V <sub>CC</sub> =-60V		0.7		μs
t <sub>s</sub>	Storage time			3.6		μs
t <sub>f</sub>	Fall time			0.9		μs

◆ h<sub>FE</sub> classifications

O	P	Y
5000-12000	6500-20000	15000-30000

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PACKAGE OUTLINE

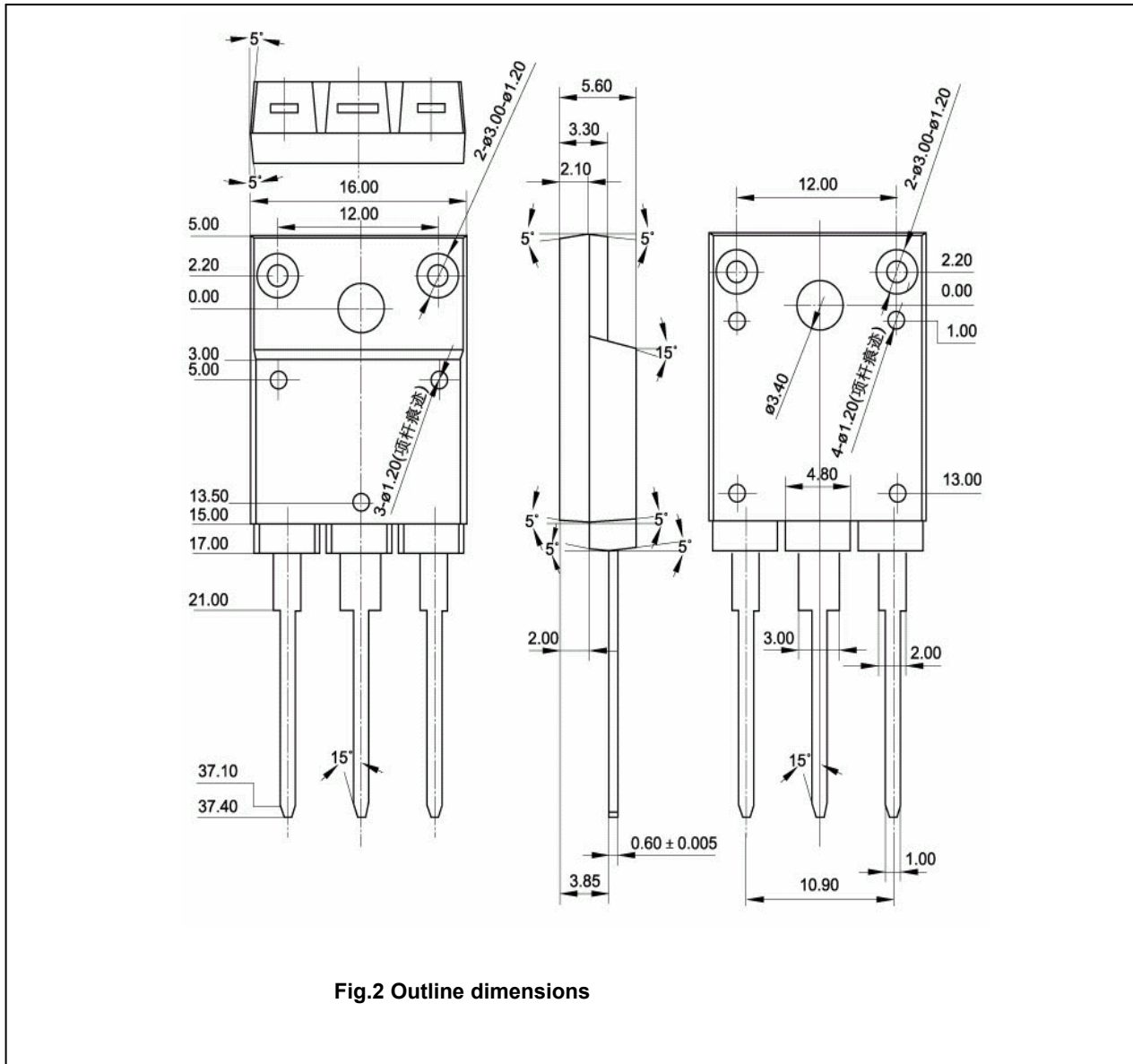


Fig.2 Outline dimensions