

## Silicon Power Transistors

## 2SD1588

## DESCRIPTION

- With TO-220Fa package
- Complement to type 2SB1097
- Low speed switching

## APPLICATIONS

- For low frequency power amplifier applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	emitter

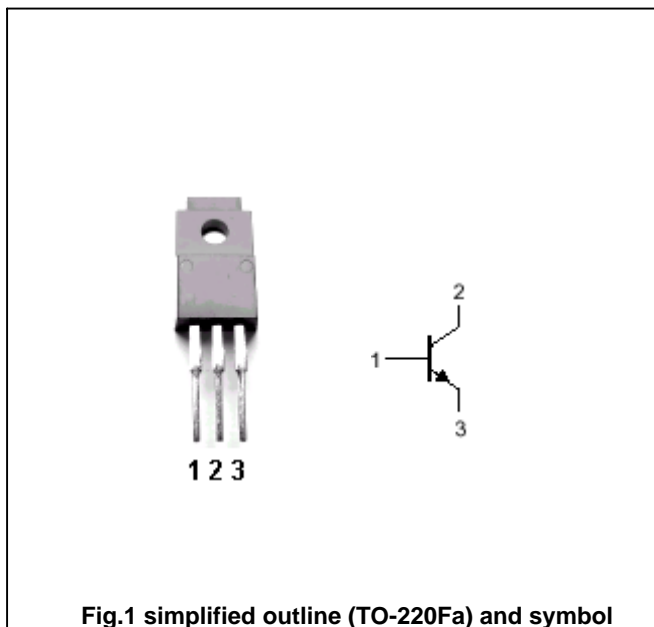


Fig.1 simplified outline (TO-220Fa) and symbol

ABSOLUTE MAXIMUM RATINGS AT  $T_c=25$ 

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	100	V
$V_{CEO}$	Collector-emitter voltage	Open base	60	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current (DC)		7	A
$I_{CM}$	Collector current-Peak		15	A
$I_B$	Base current		3.5	A
$P_C$	Collector power dissipation	$T_c=25$	30	W
$P_C$	Collector power dissipation	$T_a=25$	2	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO</sub>	Collector-emitter voltage	I <sub>C</sub> =50mA, I <sub>B</sub> =0	60			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =5A I <sub>B</sub> =0.5A			0.5	V
V <sub>BEsat</sub>	Emitter-base saturation voltage	I <sub>C</sub> =5A I <sub>B</sub> =0.5A			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =80V I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =3A; V <sub>CE</sub> =1V	40		200	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =5A; V <sub>CE</sub> =1V	20			

◆ h<sub>FE-1</sub> Classifications

R	O	Y
40-80	60-120	100-200

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PACKAGE OUTLINE

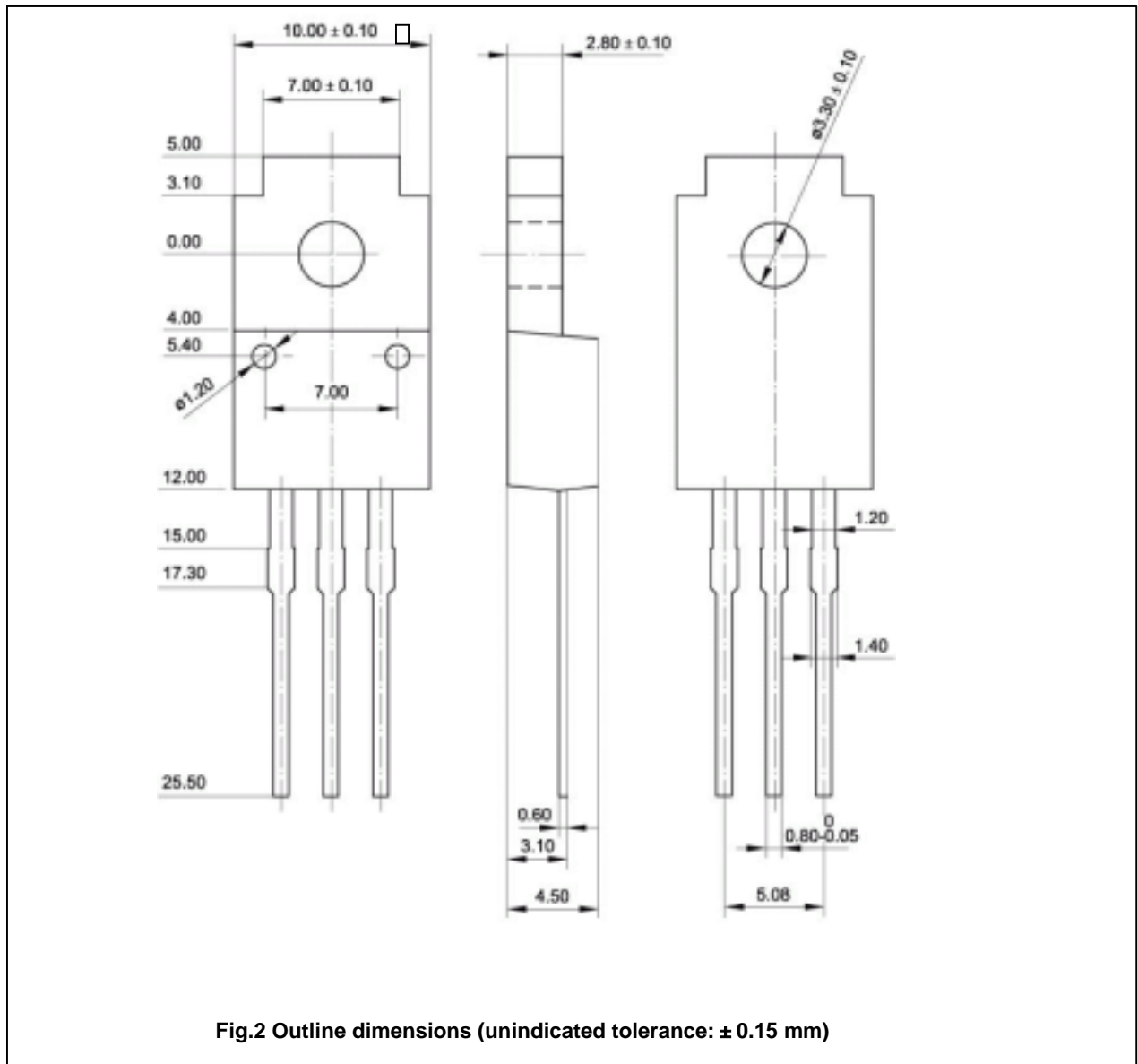


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)