

## Silicon PNP Power Transistors

## 2SA1488 2SA1488A

## DESCRIPTION

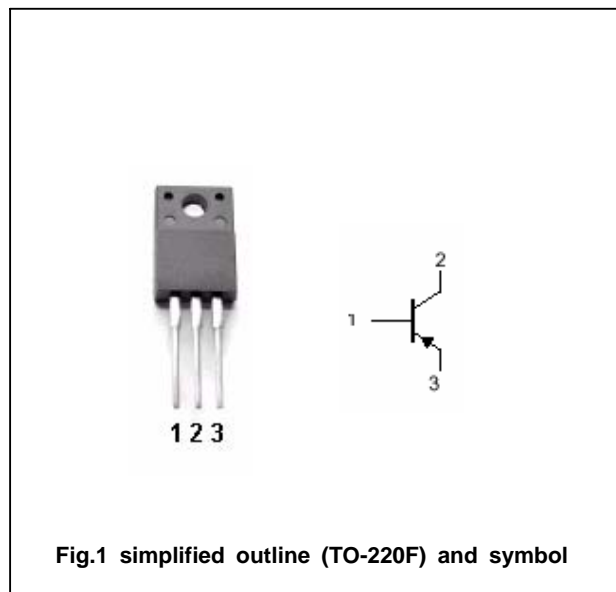
- With TO-220F package
- Complement to type 2SC3851/3851A

## APPLICATIONS

- Audio and general purpose

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



## Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	2SA1488	Open emitter	-60	V
		2SA1488A		-80	
$V_{CEO}$	Collector-emitter voltage	2SA1488	Open base	-60	V
		2SA1488A		-80	
$V_{EBO}$	Emitter-base voltage		Open collector	-6	V
$I_C$	Collector current			-4	A
$I_B$	Base current			-1	A
$P_C$	Collector dissipation		$T_C=25^{\circ}\text{C}$	25	W
$T_j$	Junction temperature			150	$^{\circ}\text{C}$
$T_{stg}$	Storage temperature			-55~150	$^{\circ}\text{C}$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA1488	I <sub>C</sub> =-25mA ; I <sub>B</sub> =0	-60			V
		2SA1488A		-80			
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-2.0A; I <sub>B</sub> =-0.2A			-0.5	V
I <sub>CBO</sub>	Collector cut-off current	2SA1488	V <sub>CB</sub> =-60V; I <sub>E</sub> =0			-0.1	mA
		2SA1488A	V <sub>CB</sub> =-80V; I <sub>E</sub> =0				
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-6V; I <sub>C</sub> =0			-0.1	mA
h <sub>FE</sub>	DC current gain		I <sub>C</sub> =-1A ; V <sub>CE</sub> =-4V	40			
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =-0.2A ; V <sub>CE</sub> =-12V		15		MHz
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0 ; V <sub>CB</sub> =-10V; f=1MHz		90		pF

## Switching time

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-2.0A; I <sub>B1</sub> =I <sub>B2</sub> =-0.2A V <sub>CC</sub> =-12V, R <sub>L</sub> =6 Ω		0.25		μ s
t <sub>s</sub>	Storage time			0.75		μ s
t <sub>f</sub>	Fall time			0.25		μ s

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## PACKAGE OUTLINE

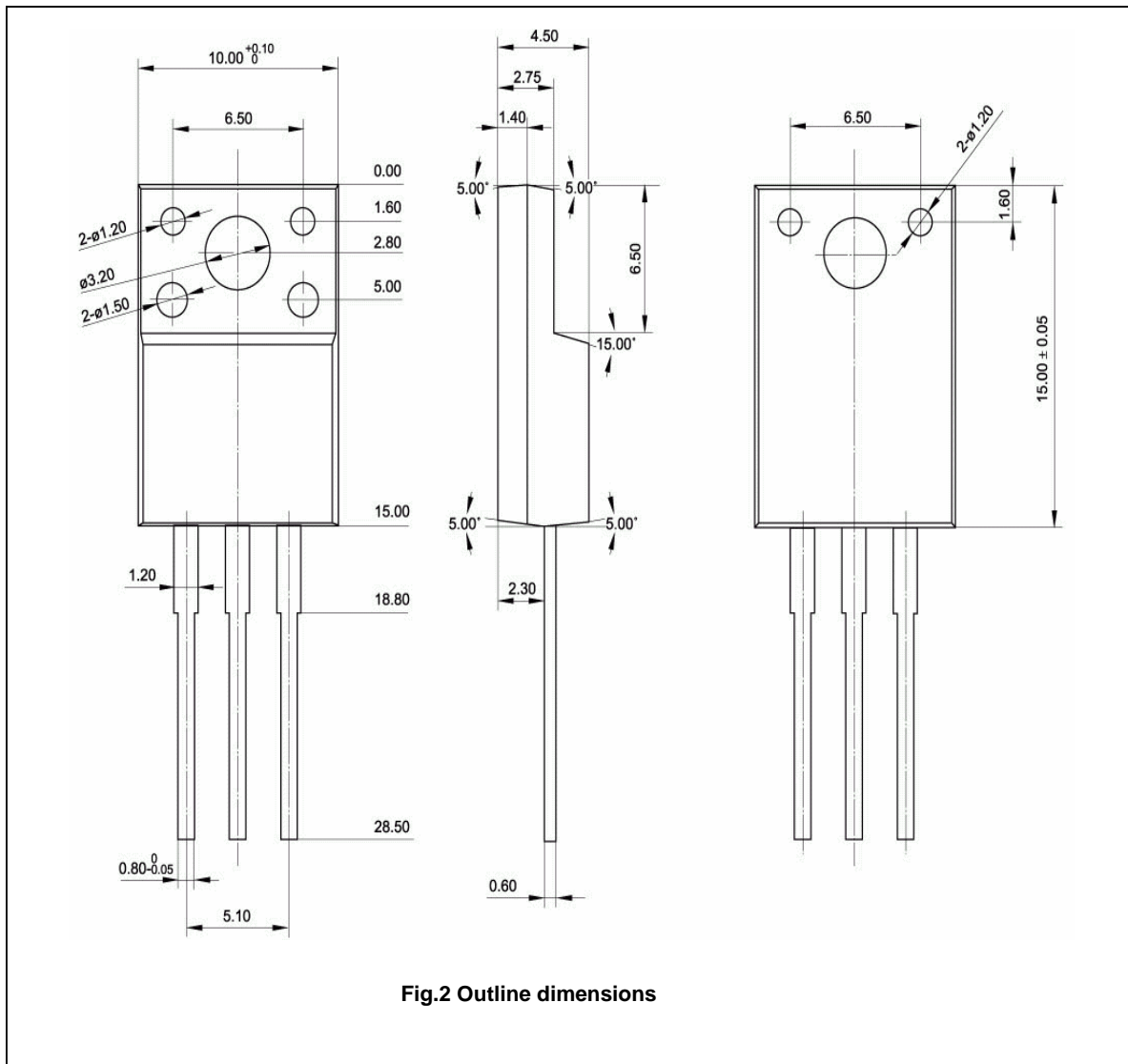


Fig.2 Outline dimensions

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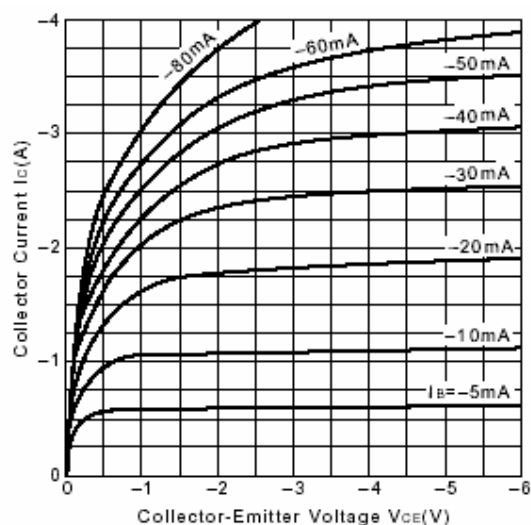


Fig.3 Static Characteristic

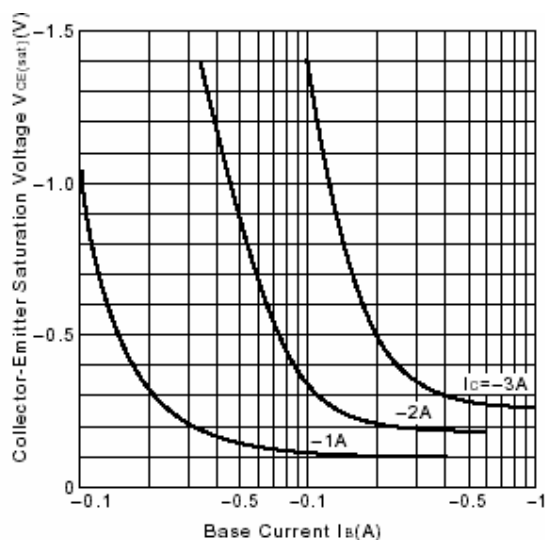
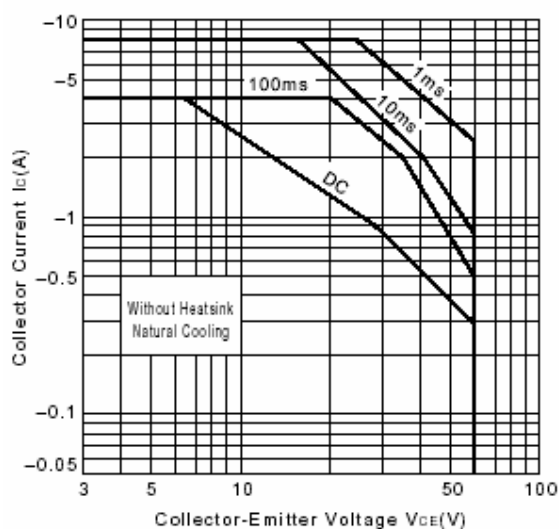
Fig.4  $V_{CE(sat)} - I_B$  Characteristics

Fig.5 Safe Operating Area

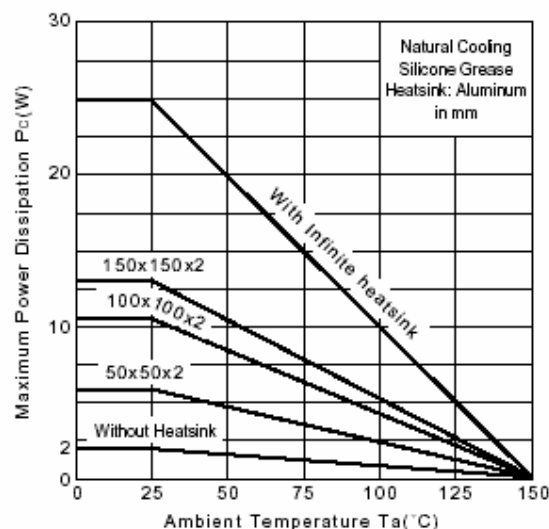
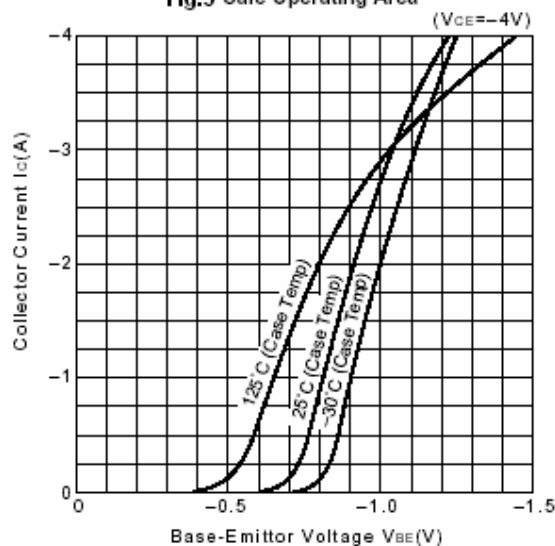
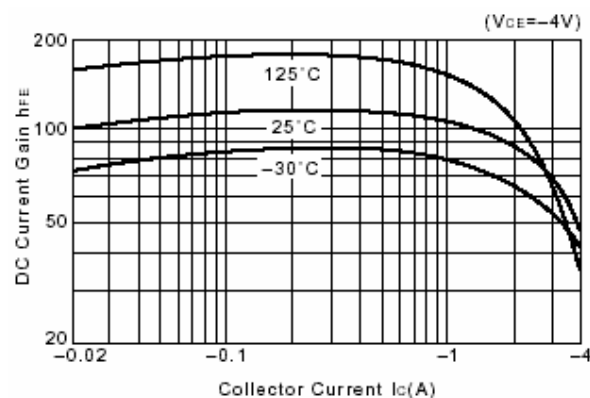
Fig.6  $P_C - T_a$  DeratingFig.7  $I_C - V_{BE}$ 

Fig.8 DC current Gain