

## Silicon PNP Power Transistors

## 2SA1205

## DESCRIPTION

- With TO-3PN package
- High power dissipation

## APPLICATIONS

- For general purpose applications

## PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter

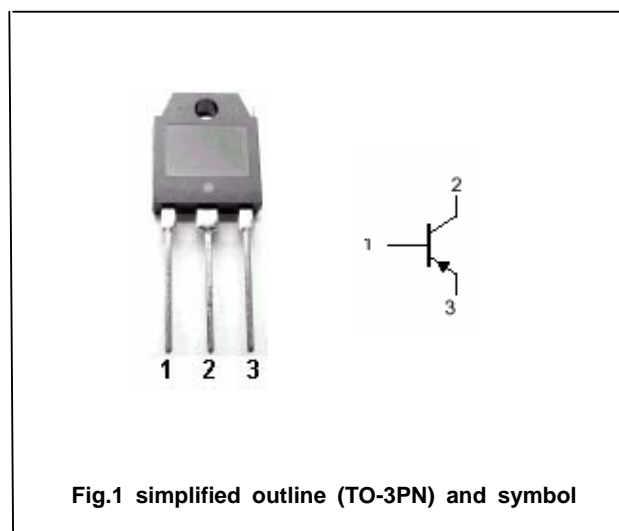


Fig.1 simplified outline (TO-3PN) and symbol

## Absolute maximum ratings(Ta=°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-70	V
$V_{CEO}$	Collector-emitter voltage	Open base	-50	V
$V_{EBO}$	Emitter-base voltage	Open collector	-6	V
$I_C$	Collector current		-12	A
$I_B$	Base current		-4	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	100	W
$T_j$	Junction temperature		150	°C
$T_{stg}$	Storage temperature		-55~150	°C

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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> =-25mA ; I <sub>B</sub> =0	-50			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-5A; I <sub>B</sub> =-0.12A			-0.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-70V; I <sub>E</sub> =0			-0.1	mA
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> =-5A ; V <sub>CE</sub> =-0.5V	40			
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =3A ; V <sub>CE</sub> =-12V		20		MHz

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =-5A; R <sub>L</sub> =4 Ω I <sub>B1</sub> =-I <sub>B2</sub> =-0.12A V <sub>CC</sub> =-20V		0.60		μ s
t <sub>stg</sub>	Storage time			0.50		μ s
t <sub>f</sub>	Fall time			0.25		μ s

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PACKAGE OUTLINE

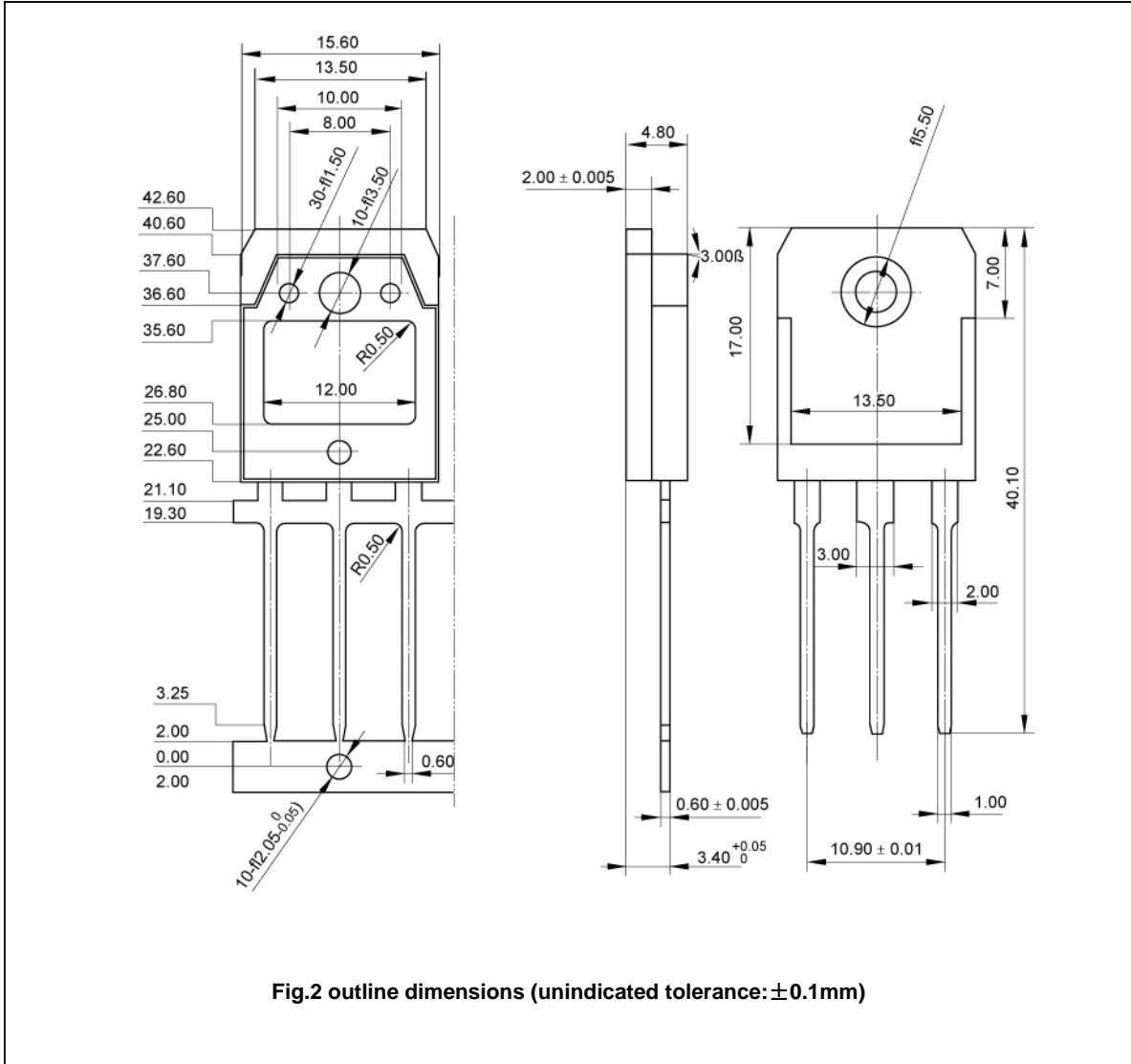


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1\text{mm}$ )