

## Silicon NPN Power Transistors

S2000A

## DESCRIPTION

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- With TO-3PH package
- High voltage ,high speed
- Low collector saturation voltage

## APPLICATIONS

- Color TV horizontal output applications
- Color TV switching regulator applications

## PINNING(See Fig.2)

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

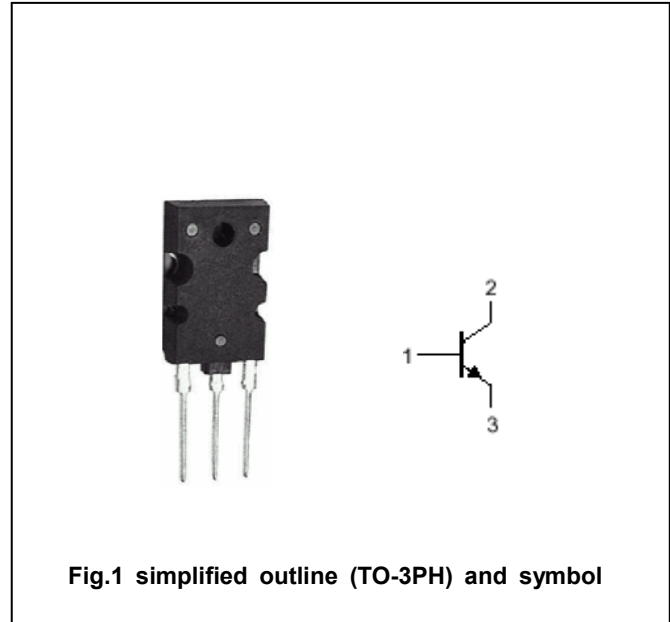


Fig.1 simplified outline (TO-3PH) and symbol

ABSOLUTE MAXIMUM RATINGS ( $T_C=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	V
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		8	A
$I_{CM}$	Collector current-peak		15	A
$I_B$	Base current		4	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	125	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°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>B</sub> =500mA ; V <sub>BE</sub> =-1.7V; L=40mH	700			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA ; I <sub>C</sub> =0	5			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =2A			1.0	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5A ; I <sub>B</sub> =1.0A			1.2	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =1500V; V <sub>BE</sub> =0			1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	10		30	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =4.5A ; V <sub>CE</sub> =5V	4.5		9	
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0 ; V <sub>CB</sub> =10V; f=1MHz		95		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =10V		2		MHz

PACKAGE OUTLINE

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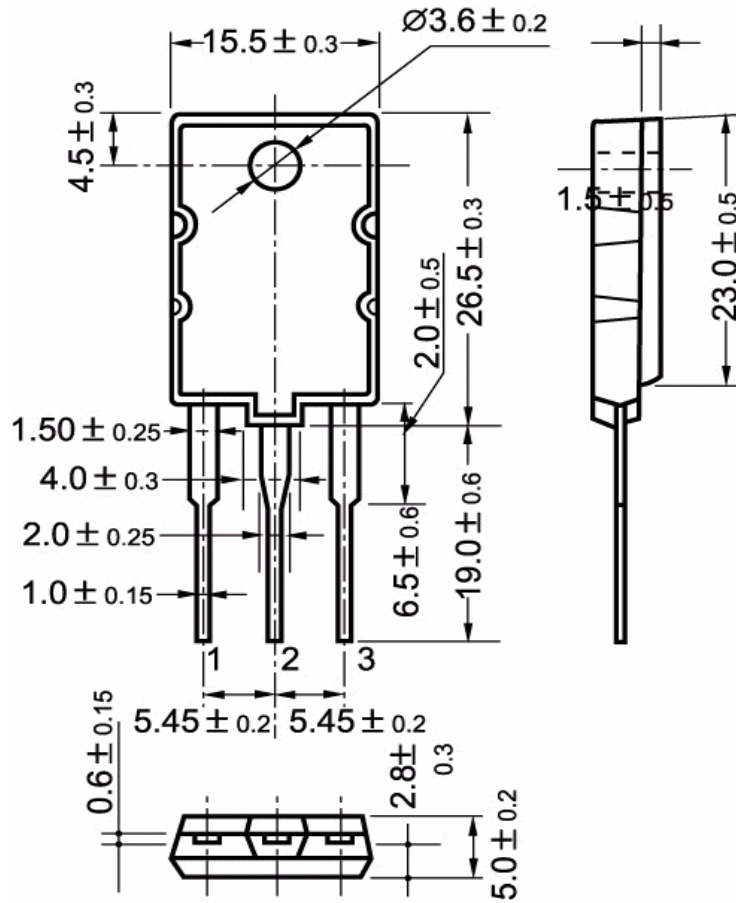


Fig.2 outline dimensions