

## Silicon PNP Power Transistors

## 2SA913 2SA913A

## DESCRIPTION

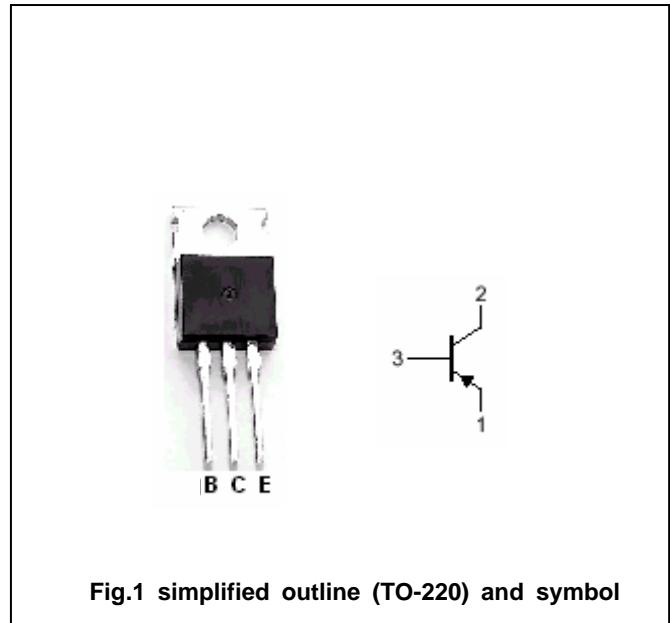
- With TO-220 package
- Complement to type 2SC1913/1913A
- Large collector power dissipation
- High  $V_{CE0}$

## APPLICATIONS

- Audio frequency high power driver

## PINNING

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

Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	2SA913	-150	V
		2SA913A	-180	
$V_{CEO}$	Collector-emitter voltage	2SA913	-150	V
		2SA913A	-180	
$V_{EBO}$	Emitter-base voltage	Open collector	-5	V
$I_C$	Collector current		-1	A
$I_{CM}$	Collector current-peak		-1.5	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	15	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

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA913	I <sub>C</sub> =-0.1mA, I <sub>B</sub> =0	-150			V
		2SA913A		-180			
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage		I <sub>E</sub> =-10μA, I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	2SA913	I <sub>C</sub> =-0.5A; I <sub>B</sub> =-50mA			-1.0	V
		2SA913A	I <sub>C</sub> =-0.3A; I <sub>B</sub> =-30mA			-1.5	
V <sub>BEsat</sub>	Base-emitter saturation voltage	2SA913	I <sub>C</sub> =-0.5A; I <sub>B</sub> =-50mA			-1.5	V
		2SA913A	I <sub>C</sub> =-0.3A; I <sub>B</sub> =-30mA				
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =-120V; I <sub>E</sub> =0			-1	μA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-4V; I <sub>C</sub> =0			-1	μA
h <sub>FE-1</sub>	DC current gain		I <sub>C</sub> =-150mA; V <sub>CE</sub> =-10V	65		330	
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =-500mA; V <sub>CE</sub> =-5V	50			
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0; V <sub>CB</sub> =-100V; f=1MHz			15	pF
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =50mA; V <sub>CE</sub> =-10V		120		MHz

◆ h<sub>FE-1</sub> Classifications

P	Q	R	S
65-110	90-155	130-220	185-330

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PACKAGE OUTLINE

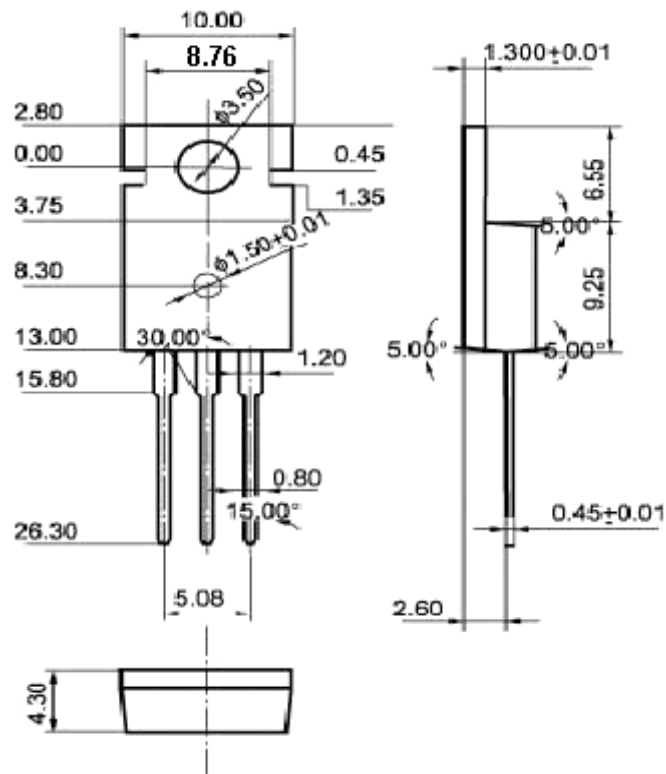


Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)