

Silicon PNP Power Transistors

2SA913 2SA913A

DESCRIPTION

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

APPLICATIONS

- Audio frequency high power driver

PINNING

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

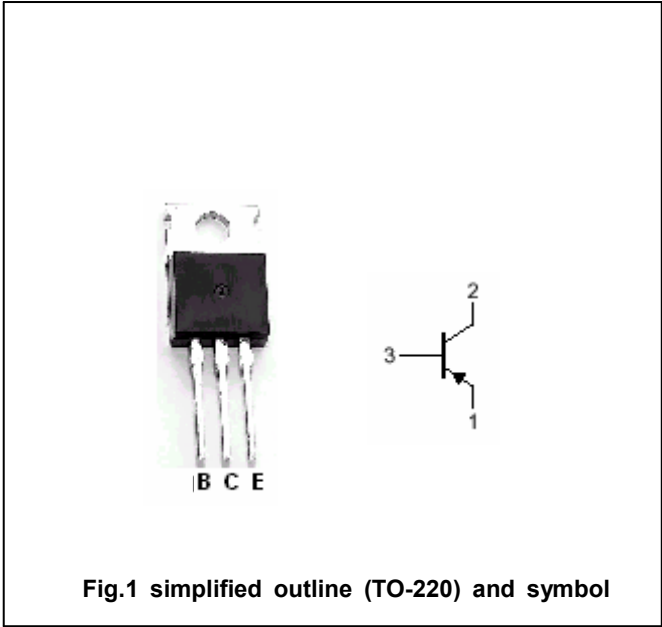


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA913	Open emitter	-150	V
		2SA913A		-180	
V_{CEO}	Collector-emitter voltage	2SA913	Open base	-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

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SA913	$I_C = -0.1mA, I_B = 0$	-150			V
		2SA913A		-180			
$V_{(BR)EBO}$	Emitter-base breakdown voltage		$I_E = -10\mu A, I_C = 0$	-5			V
V_{CEsat}	Collector-emitter saturation voltage	2SA913	$I_C = -0.5A; I_B = -50mA$			-1.0	V
		2SA913A	$I_C = -0.3A; I_B = -30mA$			-1.5	
V_{BEsat}	Base-emitter saturation voltage	2SA913	$I_C = -0.5A; I_B = -50mA$			-1.5	V
		2SA913A	$I_C = -0.3A; I_B = -30mA$				
I_{CBO}	Collector cut-off current		$V_{CB} = -120V; I_E = 0$			-1	μA
I_{EBO}	Emitter cut-off current		$V_{EB} = -4V; I_C = 0$			-1	μA
h_{FE-1}	DC current gain		$I_C = -150mA; V_{CE} = -10V$	65		330	
h_{FE-2}	DC current gain		$I_C = -500mA; V_{CE} = -5V$	50			
C_{OB}	Output capacitance		$I_E = 0; V_{CB} = -100V; f = 1MHz$			15	pF
f_T	Transition frequency		$I_C = 50mA; V_{CE} = -10V$		120		MHz

◆ h_{FE-1} Classifications

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

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PACKAGE OUTLINE

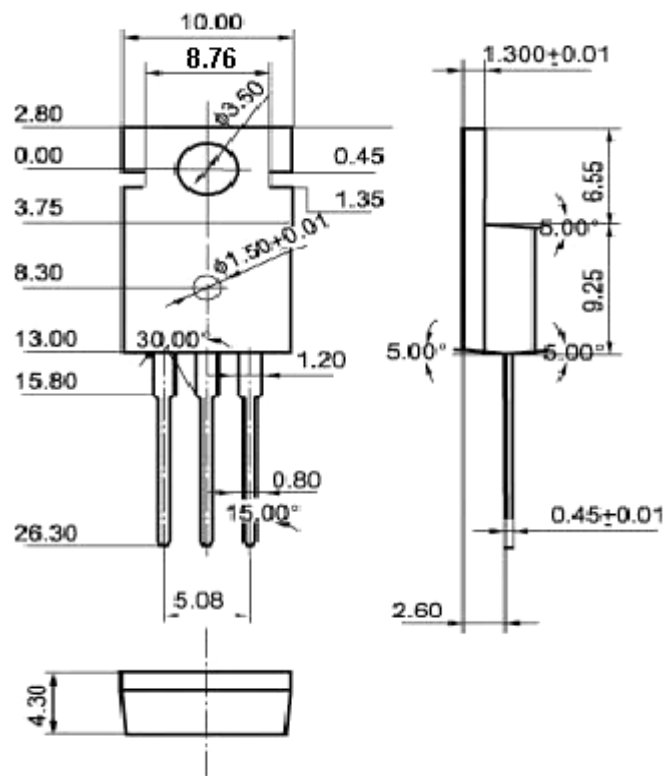


Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)