

Silicon NPN Power Transistors

2SC1913 2SC1913A

DESCRIPTION

- With TO-220 package
- Complement to type 2SA913/913A
- Large collector power dissipation
- High V_{CEO}

APPLICATIONS

- Audio frequency high power driver

PINNING

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

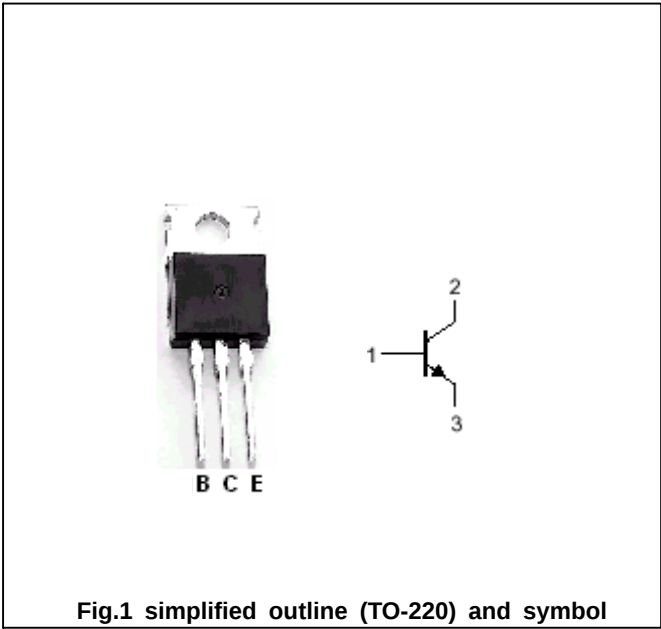


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SC1913	Open emitter	150	V
		2SC1913A		180	
V_{CEO}	Collector-emitter voltage	2SC1913	Open base	150	V
		2SC1913A		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		$T_C=25$	15	W
T_j	Junction temperature			150	
T_{stg}	Storage temperature			-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEO}	Base-emitter breakdown voltage	2SC1913	I _C =0.1mA, I _B =0	150			V
		2SC1913A		180			
V _{EBO}	Emitter-base breakdown voltage		I _E =10 μA, I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	2SC1913	I _C =0.3A; I _B =30mA			1.0	V
		2SC1913A				1.5	
V _{BEsat}	Base-emitter saturation voltage		I _C =0.3A; I _B =30mA			1.5	V
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

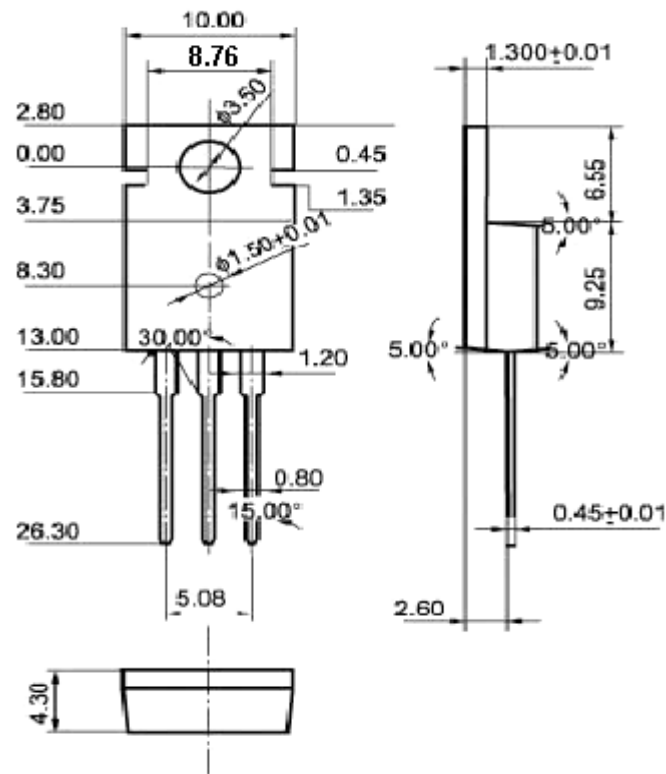
◆ h_{FE-1} Classifications

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)