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

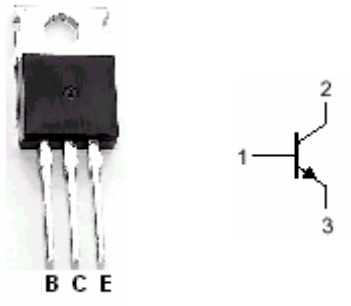

Fig.1 simplified outline (TO-220) and symbol

PINNING

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

固电半导体 INCHANGE SEMICONDUCTOR

Absolute maximum ratings(Ta=25℃)

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

Tj=25℃ unless otherwise specified

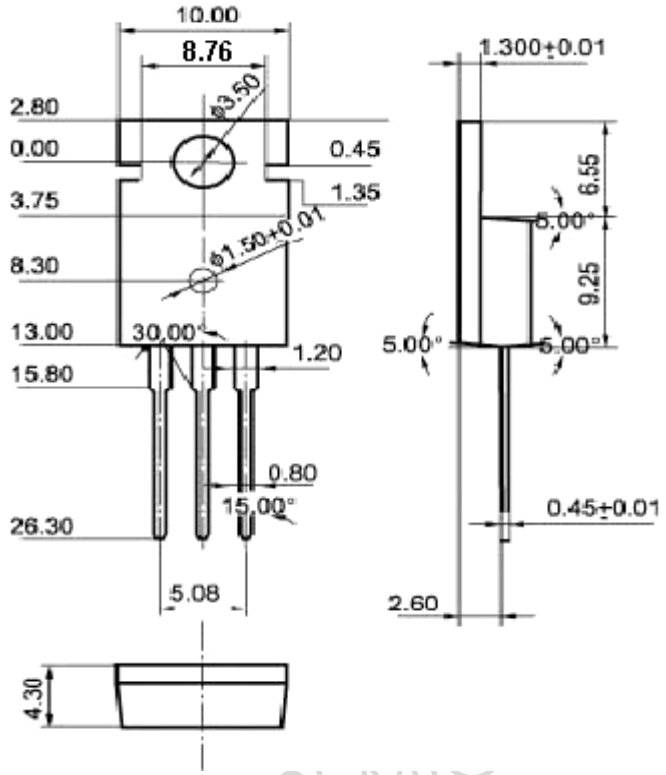
SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SC1913	I_C=0.1mA ,I_B=0	150			V
		2SC1913A		180			
$V_{(BR)EBO}$	Emitter-base breakdown voltage		I_E=10μA ,I_C=0	5			V
V_{CEsat}	Collector-emitter saturation voltage	2SC1913	I_C=0.3A; I_B=30mA			1.0	V
		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

国电半导体 INCHANGE SEMICONDUCTOR

◆ **h_{FE-1} Classifications**

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

PACKAGE OUTLINE



固电半 UCTOR
INCHANGE SEMIC

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