

**Silicon PNP Power Transistors**

**2SA1133 2SA1133A**

**DESCRIPTION**

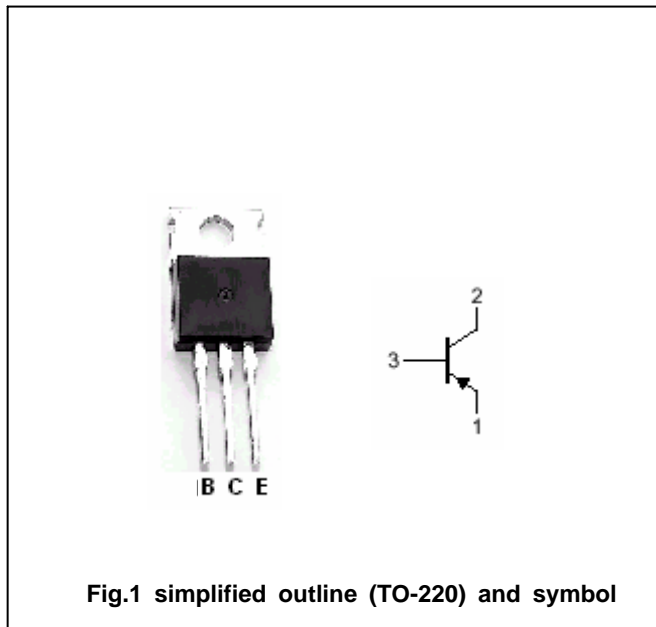
- With TO-220 package
- High breakdown voltage
- High power dissipation
- Complement to type 2SC2660/2660A

**APPLICATIONS**

- For power amplifier and TV vertical deflection output applications

**PINNING**

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



**Absolute maximum ratings(Ta=25 )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	-200	V
$V_{CEO}$	Collector-emitter voltage	2SA1133	-150	V
		2SA1133A	-180	
$V_{EBO}$	Emitter-base voltage	Open collector	-6	V
$I_C$	Collector current		-2.0	A
$I_{CM}$	Collector current-peak		-3.0	A
$P_T$	Total power dissipation	$T_C=25$	30	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	2SA1133	I <sub>C</sub> =-5mA, I <sub>B</sub> =0	-150		V
		2SA1133A		-180		
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-0.5mA, I <sub>E</sub> =0	-200			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-0.5mA, I <sub>C</sub> =0	-6			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-500mA; I <sub>B</sub> =-50mA			-1.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-400mA; V <sub>CE</sub> =-10V			-1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-200V; I <sub>E</sub> =0			-50	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-4V; I <sub>C</sub> =0			-50	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-150mA; V <sub>CE</sub> =-10V	60		240	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-400mA; V <sub>CE</sub> =-10V	50			

◆ h<sub>FE-1</sub> Classifications

Q	P
60-140	100-240

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PACKAGE OUTLINE



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