

**Silicon PNP Power Transistors**

**2SA985 2SA985A**

**DESCRIPTION**

- With TO-220 package
- Complement to type 2SC2275/2275A
- High breakdown voltage

**APPLICATIONS**

- For low frequency and high frequency power amplifier applicatons

**PINNING**

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

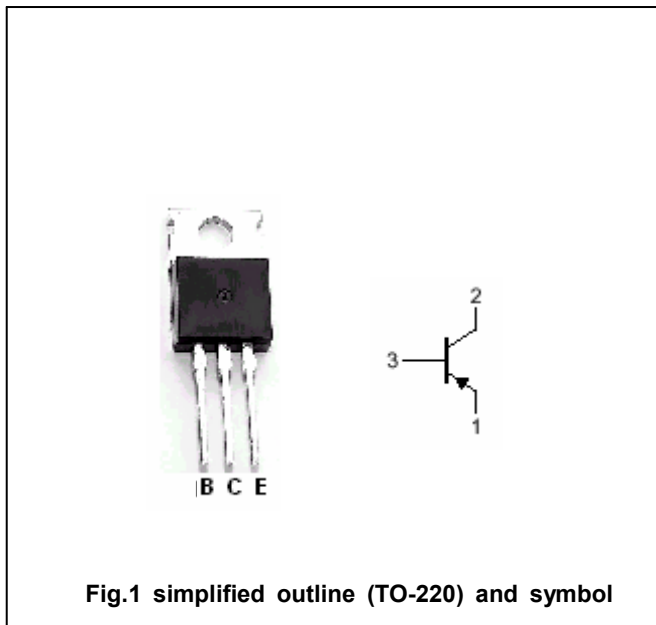


Fig.1 simplified outline (TO-220) and symbol

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SA985	-120	V
		2SA985A	-150	
V <sub>CEO</sub>	Collector-emitter voltage	2SA985	-120	V
		2SA985A	-150	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-1.5	A
I <sub>CM</sub>	Collector current-peak		-3.0	A
I <sub>B</sub>	Base current		-0.3	A
P <sub>T</sub>	Total power dissipation	T <sub>a</sub> =25°C	1.5	W
		T <sub>C</sub> =25°C	25	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°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	2SA985	I <sub>C</sub> =-25mA, I <sub>B</sub> =0	-120			V
		2SA985A		-150			
V <sub>CEsat</sub>	Collector-emitter saturation voltage		I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A		-0.3	-2.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage		I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A		-0.9	-1.5	V
I <sub>CBO</sub>	Collector cut-off current		V <sub>CB</sub> =-120V; I <sub>E</sub> =0			-1.0	μA
I <sub>EBO</sub>	Emitter cut-off current		V <sub>EB</sub> =-3V; I <sub>C</sub> =0			-1.0	μA
h <sub>FE-1</sub>	DC current gain		I <sub>C</sub> =-5mA; V <sub>CE</sub> =-5V	35			
h <sub>FE-2</sub>	DC current gain		I <sub>C</sub> =-0.3A; V <sub>CE</sub> =-5V	60	150	320	
C <sub>OB</sub>	Output capacitance		I <sub>E</sub> =0; V <sub>CB</sub> =-10V, f=1MHz		29		pF
f <sub>T</sub>	Transition frequency		I <sub>C</sub> =-0.2A; V <sub>CE</sub> =-5V		180		MHz

◆ h<sub>FE-2</sub> Classifications

R	Q	P
60-120	100-200	160-320

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PACKAGE OUTLINE



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