

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

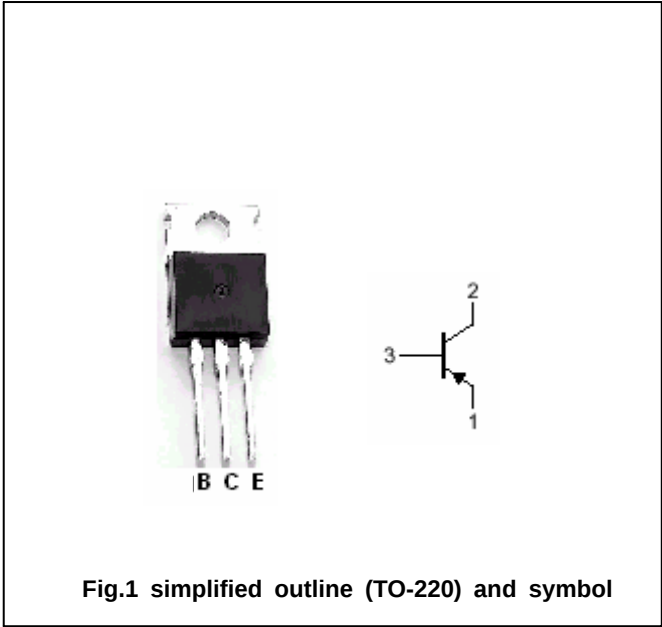


Fig.1 simplified outline (TO-220) and symbol

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

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA985	Open emitter	-120	V
		2SA985A		-150	
V_{CEO}	Collector-emitter voltage	2SA985	Open base	-120	V
		2SA985A		-150	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-1.5	A
I_{CM}	Collector current-peak			-3.0	A
I_B	Base current			-0.3	A
P_T	Total power dissipation	$T_a=25$		1.5	W
		$T_C=25$		25	
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 _{(BR)CEO}	Collector-emitter breakdown voltage	2SA985	I _C =-25mA, I _B =0	-120			V
		2SA985A		-150			
V _{CEsat}	Collector-emitter saturation voltage		I _C =-1A; I _B =-0.1A		-0.3	-2.0	V
V _{BEsat}	Base-emitter saturation voltage		I _C =-1A; I _B =-0.1A		-0.9	-1.5	V
I _{CBO}	Collector cut-off current		V _{CB} =-120V; I _E =0			-1.0	μA
I _{EBO}	Emitter cut-off current		V _{EB} =-3V; I _C =0			-1.0	μA
h _{FE-1}	DC current gain		I _C =-5mA; V _{CE} =-5V	35			
h _{FE-2}	DC current gain		I _C =-0.3A; V _{CE} =-5V	60	150	320	
C _{OB}	Output capacitance		I _E =0; V _{CB} =-10V, f=1MHz		29		pF
f _T	Transition frequency		I _C =-0.2A; V _{CE} =-5V		180		MHz

◆ h_{FE-2} Classifications

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

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Technical drawing of a mechanical part showing three views: front, side, and bottom views. The drawing includes the following dimensions:

- Front View:**
 - Overall width: 10.00
 - Top flange width: 8.76
 - Top flange thickness: 2.80
 - Top flange hole diameter: $\phi 3.50$
 - Top flange hole position from left edge: 0.00
 - Top flange hole position from right edge: 0.45
 - Top flange hole position from bottom edge: 3.75
 - Top flange hole position from right edge (bottom): 1.35
 - Bottom flange thickness: 8.30
 - Bottom flange hole diameter: $\phi 1.50 \pm 0.01$
 - Bottom flange hole position from left edge: 30.00
 - Bottom flange hole position from right edge: 1.20
 - Bottom flange hole position from bottom edge: 13.00
 - Bottom flange hole position from right edge (bottom): 15.80
 - Bottom flange hole position from bottom edge (bottom): 26.30
 - Bottom flange hole position from right edge (bottom): 0.80
 - Bottom flange hole position from bottom edge (bottom): 15.00
 - Bottom flange hole position from right edge (bottom): 5.08
- Side View:**
 - Overall height: 1.300 ± 0.01
 - Top flange thickness: 6.55
 - Top flange width: 5.00
 - Top flange hole position from left edge: 5.00
 - Top flange hole position from right edge: 5.00
 - Top flange hole position from bottom edge: 9.25
 - Top flange hole position from right edge (bottom): 0.45 ± 0.01
 - Bottom flange thickness: 2.60
- Bottom View:**
 - Overall width: 4.30

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