

Silicon PNP Power Transistors

2SA770 2SA771

DESCRIPTION

- With TO-220 package
- Complement to type 2SC1985/1986
- Low collector saturation voltage

APPLICATIONS

- For general and industrial purpose applications

PINNING

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

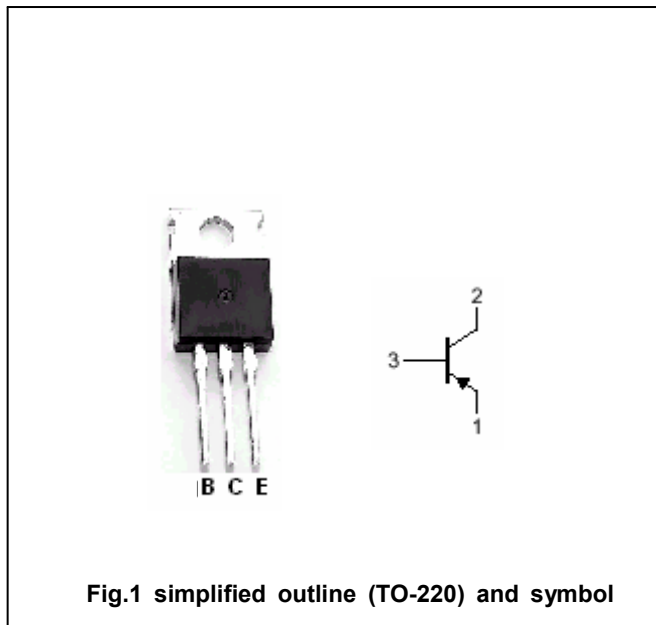


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SA770	-60	V
		2SA771	-80	
V <sub>CEO</sub>	Collector-emitter voltage	2SA770	-60	V
		2SA771	-80	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-6	V
I <sub>C</sub>	Collector current		-6	A
I <sub>B</sub>	Base current		-3	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	40	W
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	2SA770	I <sub>C</sub> =-25mA, I <sub>B</sub> =0	-60			V
		2SA771		-80			
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A			-1.0	V	
I <sub>CBO</sub>	Collector cut-off current	2SA770	V <sub>CB</sub> =-60V; I <sub>E</sub> =0			-1.0	mA
		2SA771		V <sub>CB</sub> =-80V; I <sub>E</sub> =0			
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-6V; I <sub>C</sub> =0			-1.0	mA	
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =-1A; V <sub>CE</sub> =-4V	40				
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-12V		10		MHz	

## Switching times

t <sub>r</sub>	Rise time	I <sub>C</sub> =-3A; V <sub>CC</sub> =-9V I <sub>B1</sub> =-I <sub>B2</sub> =-0.4A; R <sub>L</sub> =3Ω		0.9		μs
t <sub>stg</sub>	Storage time			1.0		μs
t <sub>f</sub>	Fall time			0.1		μs

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PACKAGE OUTLINE



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