

Silicon PNP Power Transistors

2SA748

DESCRIPTION

- With TO-220 package
- Complement to type 2SC1398
- Large collector power dissipation

APPLICATIONS

- For medium power amplifier applicattions

PINNING

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

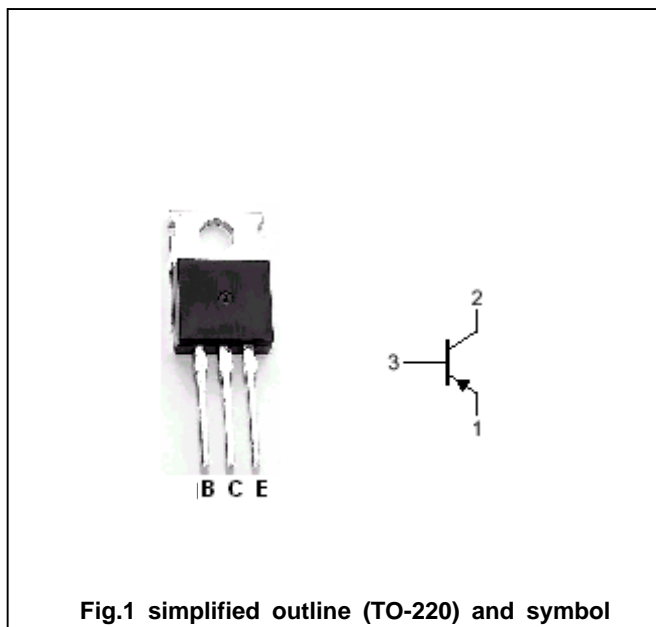


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-70	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-50	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-2	A
I <sub>CM</sub>	Collector current-peak		-3	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	15	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	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>	Base-emitter breakdown voltage	I <sub>C</sub> =-10mA, I <sub>B</sub> =0	-50			V
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	I <sub>C</sub> =-1mA, I <sub>E</sub> =0	-70			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-1A; I <sub>B</sub> =-0.1A		-0.6	-1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =-2A; I <sub>B</sub> =-0.2A		-1.0	-1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-40V; I <sub>E</sub> =0			-1	μA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =-20V; I <sub>B</sub> =0			-100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-100	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.1A; V <sub>CE</sub> =-5V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-1A; V <sub>CE</sub> =-5V	50		220	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =-5V		120		MHz

◆ h<sub>FE-2</sub> Classifications

P	Q	R
50-100	80-160	120-220

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PACKAGE OUTLINE

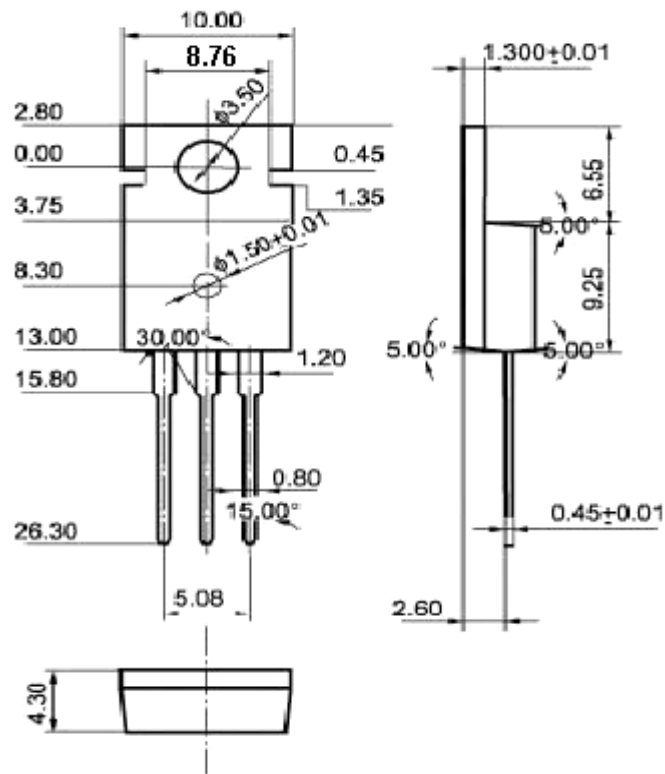


Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)