

Silicon NPN Power Transistors

2SD748 2SD748A

**DESCRIPTION**

- With TO-3 package
- High  $V_{CBO}$
- High power dissipation

**APPLICATIONS**

- Low frequency power amplifier regulator for TV power supply applications

**PINNING(see Fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector

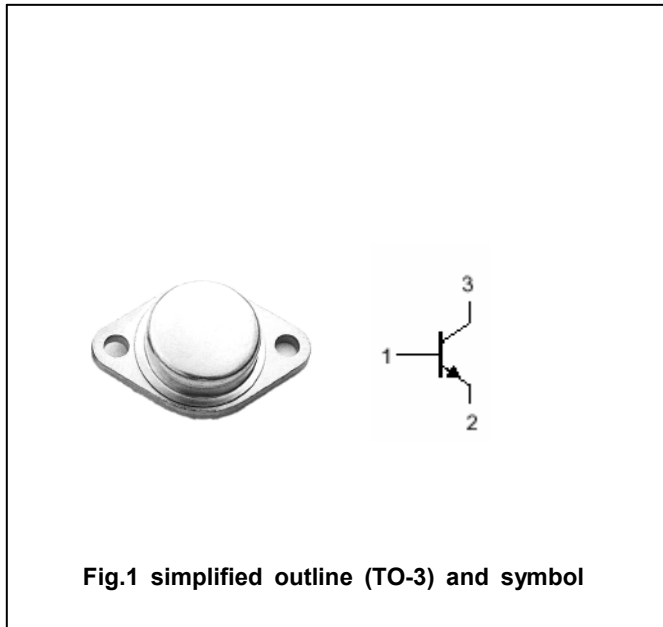


Fig.1 simplified outline (TO-3) and symbol

**Absolute maximum ratings( $T_a = \square$ )**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	250	V
$V_{CEO}$	Collector-emitter voltage	2SD748	200	V
		2SD748A	250	
$V_{EBO}$	Emitter-base voltage	Open collector	5	V
$I_C$	Collector current		3	A
$I_B$	Base current		1	A
$P_C$	Collector power dissipation	$T_C = 25 \square$	80	W
$T_j$	Junction temperature		150	$\square$
$T_{stg}$	Storage temperature		-45~150	$\square$

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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	2SD748	I <sub>C</sub> =10mA ; R <sub>BE</sub> =∞			V
		2SD748A				
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =5mA ; I <sub>C</sub> =0	5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =3A ; I <sub>B</sub> =0.6A			1.0	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V			1.5	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =200V ; I <sub>E</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V ; I <sub>C</sub> =0			1.0	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	25		200	

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PACKAGE OUTLINE



Fig.2 outline dimensions (unindicated tolerance:±0.1mm)