

# isc Silicon NPN Power Transistor

## 2SD748

### DESCRIPTION

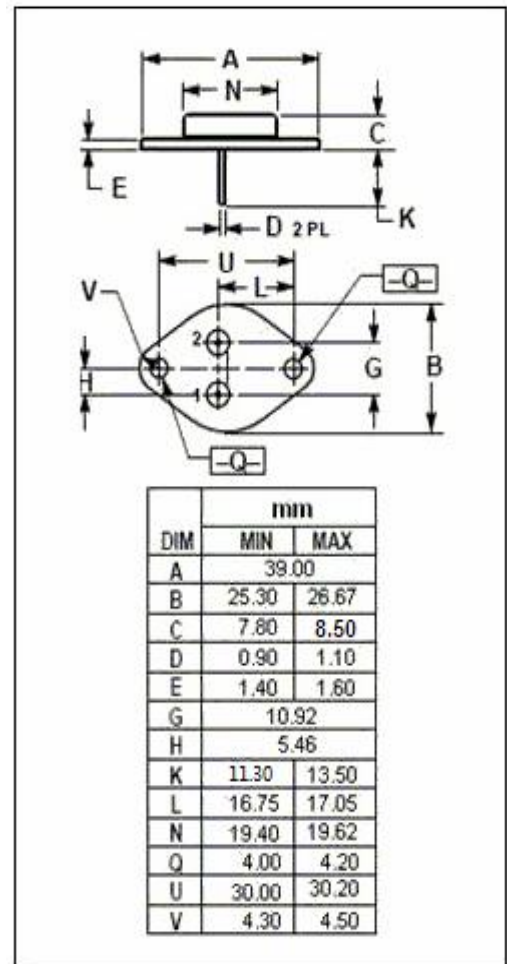
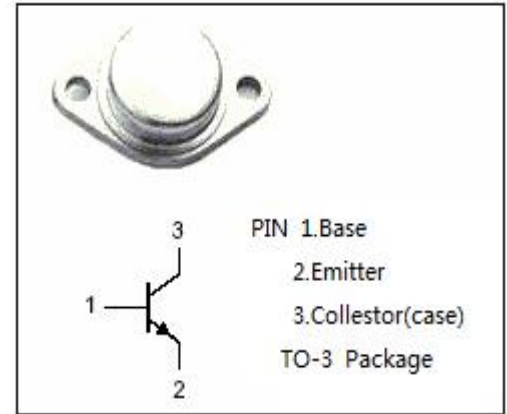
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 200V$  (Min)
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Low frequency power amplifier.
- Regulator for TV power supply.

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}C$ )

SYMBOL	PARAMETER	MAX	UNIT
$V_{CBO}$	Collector-Base Voltage	250	V
$V_{CEO}$	Collector-Emitter Voltage	200	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	3	A
$I_B$	Base Current-Continuous	1	A
$P_C$	Collector Power Dissipation @ $T_c=25^{\circ}C$	80	W
$T_j$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-45~150	$^{\circ}C$



**isc Silicon NPN Power Transistor****2SD748****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; R <sub>BE</sub> = ∞	200			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 3A; I <sub>B</sub> = 0.6A			1.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 200V; I <sub>E</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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