

## isc Silicon NPN Power Transistor

2SC1440

## DESCRIPTION

- With TO-3 Package
- High voltage
- Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

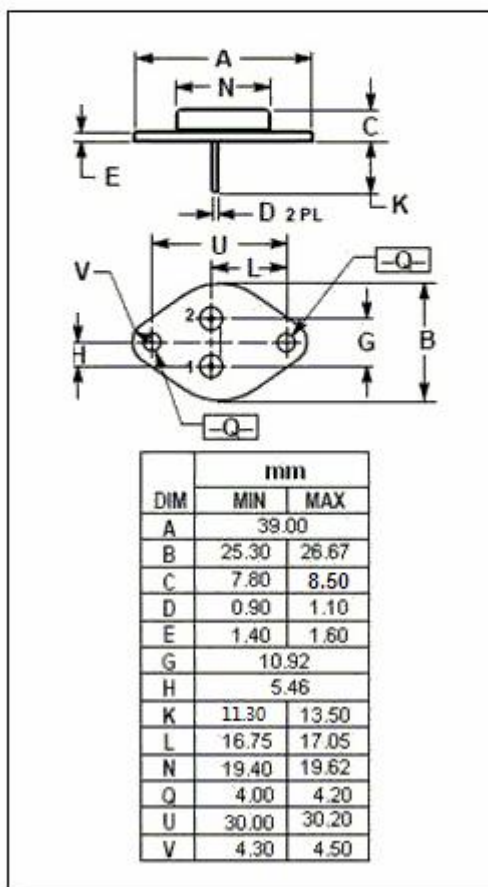
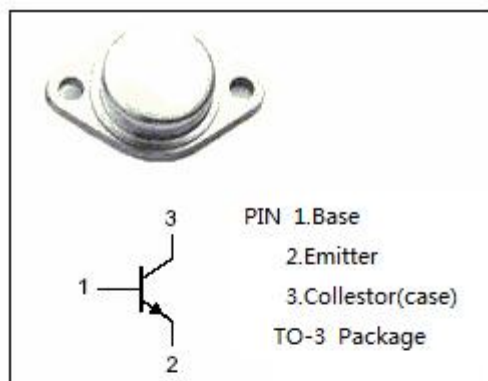
- Power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	150	V
$V_{CEO}$	Collector-Emitter Voltage	150	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$P_C$	Collector Power Dissipation	150	W
$T_J$	Junction Temperature	-65~200	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature Range	-65~200	$^{\circ}\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.17	$^{\circ}\text{C/W}$



**isc Silicon NPN Power Transistor****2SC1440****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =10A; I <sub>B</sub> = 1A			2.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> =10A; I <sub>B</sub> =1A			2.5	V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; I <sub>B</sub> = 0	150			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> =5A; V <sub>CE</sub> = 4V	20			
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 150V ; I <sub>E</sub> = 0			100	uA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> =5V; I <sub>C</sub> = 0			100	uA

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