

## isc Silicon NPN Power Transistor

2SC3658

## DESCRIPTION

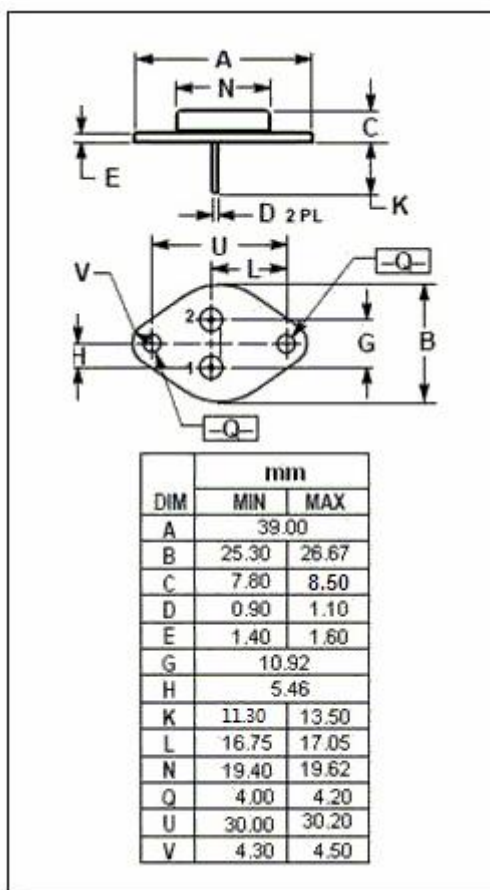
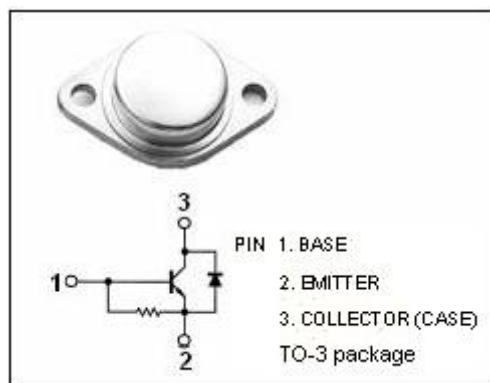
- High Breakdown Voltage-  
:  $V_{CES} = 1500V$  (Min)
- Built-in Damper Diode
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for high voltage, high power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CES}$	Collector-Emitter Voltage	1500	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current- Continuous	8	A
$P_C$	Collector Power Dissipation @ $T_c=25^{\circ}C$	50	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-45~150	$^{\circ}C$



**isc Silicon NPN Power Transistor****2SC3658****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> = 5A; I <sub>B</sub> = 1.25A			2.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 1.25A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 1200V; I <sub>E</sub> = 0			0.5	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6V; I <sub>C</sub> = 0			500	mA
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 6A			2.0	V
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 5A, I <sub>B1</sub> = 1A, I <sub>B2</sub> = -2.5A, L <sub>B</sub> = 0			0.5	μs

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