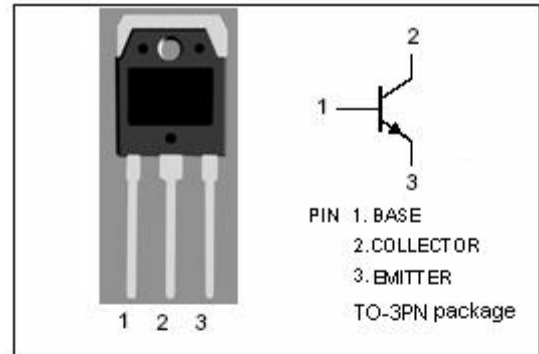


**isc Silicon NPN Power Transistor**
**2SC3642**
**DESCRIPTION**

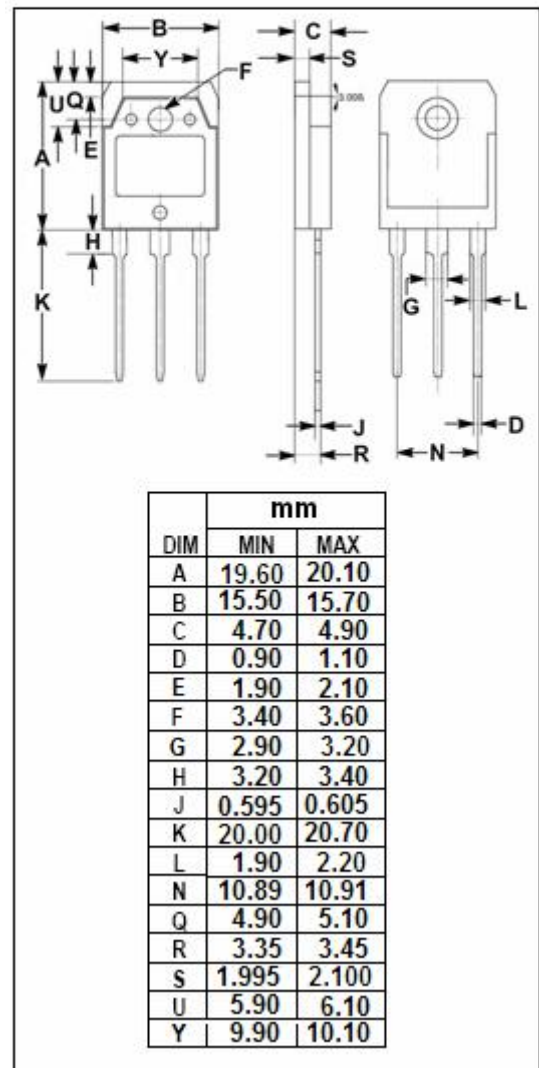
- Low Collector Saturation Voltage
- High breakdown voltage and high reliability
- Fast switching speed
- Wide ASO
- NPN triple diffused planar silicon transistor
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation


**APPLICATIONS**

- Ultrahigh deflection display
- Horizontal deflection output application

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	1200	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
I <sub>C</sub>	Collector Current-Continuous	6	A
I <sub>CM</sub>	Collector Current-Pulse	12	A
I <sub>B</sub>	Base Current-Continuous	2	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	100	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



## isc Silicon NPN Power Transistor

2SC3642

## 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> = 100mA ; I <sub>B</sub> = 0	800			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.8A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 1000V; I <sub>E</sub> = 0			10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7V; I <sub>C</sub> = 0			10	μ A
h <sub>FE</sub> -	DC Current Gain	I <sub>C</sub> = 0.8A ; V <sub>CE</sub> = 5V	8			

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