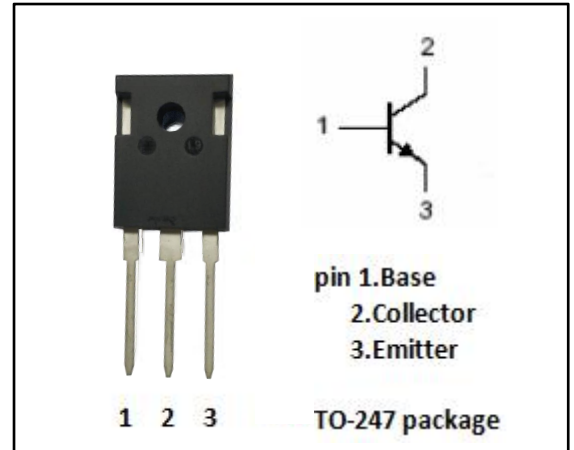


**isc Silicon NPN Power Transistor**
**BUTW92**
**DESCRIPTION**

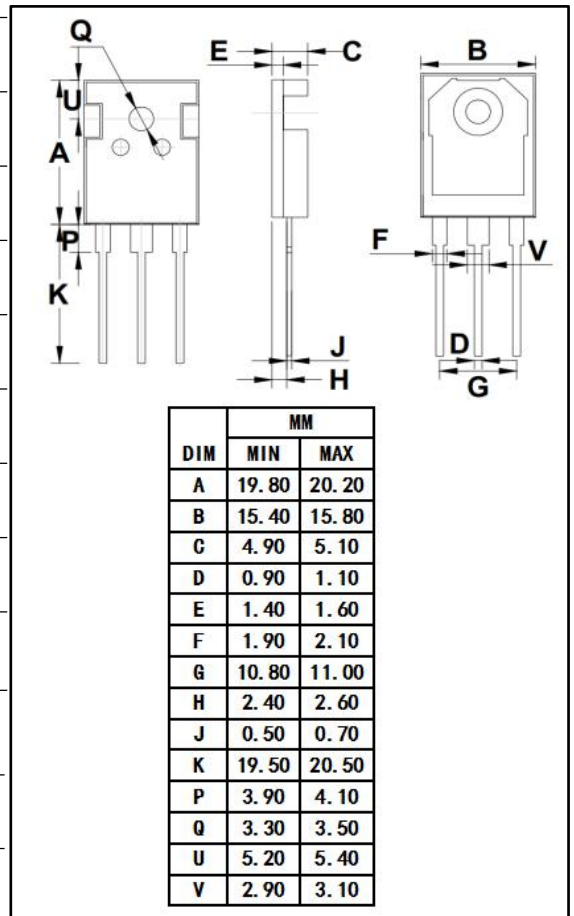
- High current
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Converters
- Inverters
- Switching regulators
- Motor control systems


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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBS</sub>	Collector-Emitter Voltage (V <sub>BE</sub> = 0)	500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	250	V
V <sub>EBO</sub>	Emitter-Base Voltage	7.0	V
I <sub>C</sub>	Collector Current-Continuous	60	A
I <sub>CM</sub>	Collector Current-Peak	70	A
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	180	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C


**THERMAL CHARACTERISTICS**


SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.7	°C/W

## isc Silicon NPN Power Transistor

## BUTW92

## ELECTRICAL CHARACTERISTICS

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 5mA; V <sub>EB</sub> =0	500		V
V <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA	7		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 60A; I <sub>B</sub> = 15A		1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage 	I <sub>C</sub> = 60A; I <sub>B</sub> = 15A		1.9	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> =RatedV <sub>CES</sub> ; V <sub>BE</sub> = 0 V <sub>CE</sub> =RatedV <sub>CES</sub> ; V <sub>BE</sub> = 0; T <sub>C</sub> =100°C		0.05 1.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5.0V; I <sub>C</sub> = 0		0.05	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 60A; V <sub>CE</sub> = 3V	9		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 5A; V <sub>CE</sub> = 3V		65	

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