

**isc Silicon NPN Power Transistor**
**GSRU15040**
**DESCRIPTION**

- High DC Current Gain-  
:  $h_{FE} = 10(\text{MIN})@I_C = 15\text{A}$
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

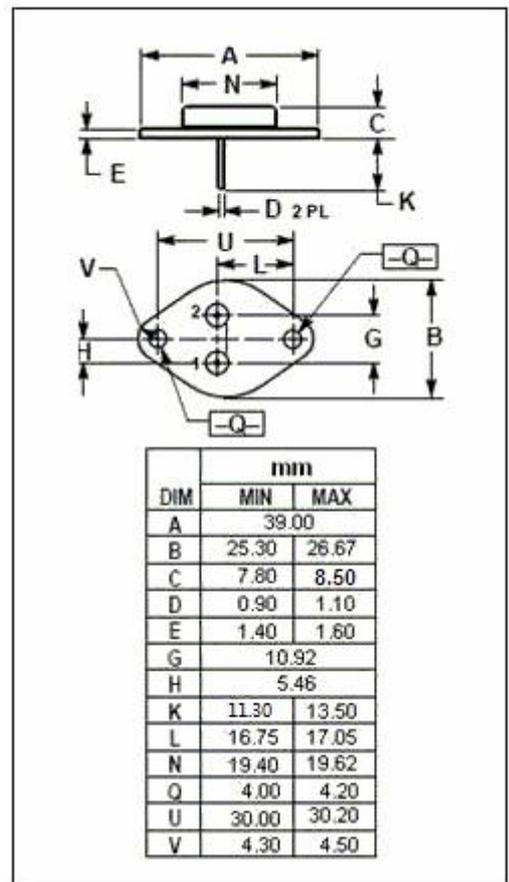
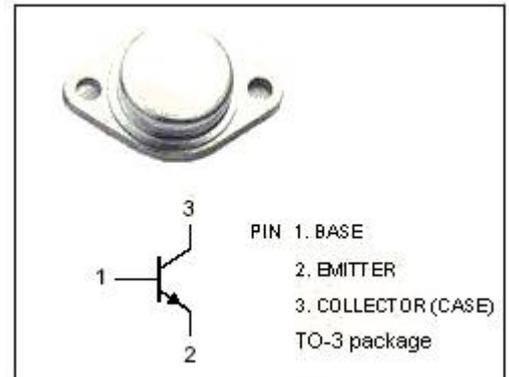
- Power Supplies
- Switching Amplifiers
- Inverters/Converters

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	500	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current-Continuous	20	A
$I_{CM}$	Peak Collector Current	30	A
$I_B$	Base Current-Continuous	10	A
$P_C$	Collector Power Dissipation@ $T_C = 25^\circ\text{C}$	175	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	1.0	$^\circ\text{C}/\text{W}$



**isc Silicon NPN Power Transistor****GSRU15040****ELECTRICAL CHARACTERISTICS**T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> =50mA; I <sub>B</sub> =0	400			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =15A; I <sub>B</sub> =3A			1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> =15A; I <sub>B</sub> =3A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> =400V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter Cutoff current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> =15A; V <sub>CE</sub> =5V	10			

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