

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

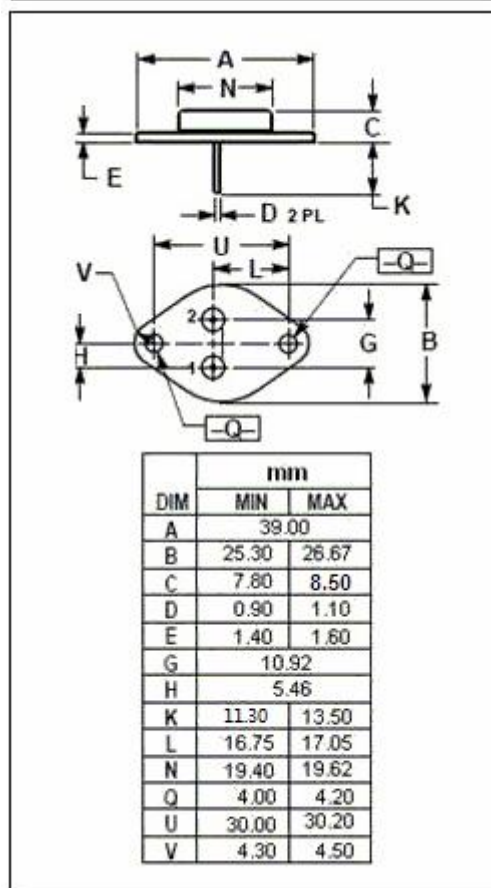
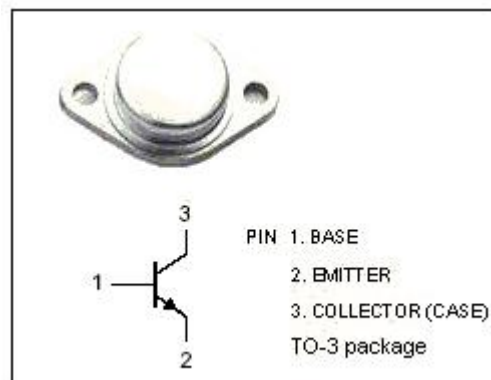
- Power Supplies
- Switching Amplifiers
- Inverters/Converters

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	$^\circ\text{C/W}$



isc Silicon NPN Power Transistor**GSRU15040****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C =50mA; I _B =0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =15A; I _B =3A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =15A; I _B =3A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} =400V; I _E =0			10	μA
I _{EBO}	Emitter Cutoff current	V _{EB} =5V; I _C =0			10	μA
h _{FE}	DC Current Gain	I _C =15A; V _{CE} =5V	10			

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