

DESCRIPTION

- Anti-Parallel Fast Diode
- Avalanche Rated
- Short Circuit Capability

APPLICATIONS

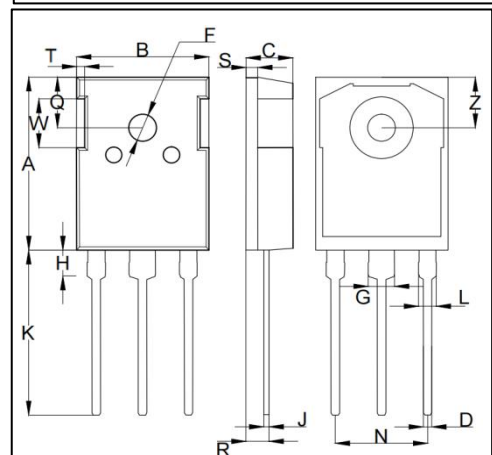
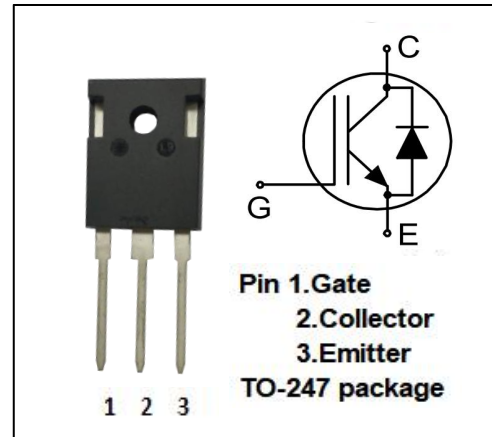
- Power Inverters
- UPS
- Motor Drives

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1200	V
V_{GES}	Gate-Emitter Voltage	± 20	V
I_C	Collector Current-Continuous @ $T_C=25^\circ\text{C}$	80	A
I_C	Collector Current-Continuous @ $T_C=100^\circ\text{C}$	40	A
I_{CM}	Pulsed Collector Current	160	A
I_F	Diode Forward Current @ $T_C=100^\circ\text{C}$	20	A
I_{FM}	Diode pulsed current	160	A
P_D	Power Dissipation @ $T_C=25^\circ\text{C}$	483	W
T_j	Operating Junction Temperature	-55~175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case for IGBT	0.31	$^\circ\text{C}/\text{W}$
$R_{th\ j-c}$	Thermal Resistance, Junction to Case for Diode	1.11	$^\circ\text{C}/\text{W}$



DIM	mm		
	MIN	TYP.	MAX
A	19.80	20.65	21.50
B	15.40	15.65	15.90
C	4.70	5.00	5.30
D	0.90	1.08	1.26
F	3.50	3.70	3.90
G	2.70	3.00	3.30
H	3.90	4.00	4.10
J	0.50	0.60	0.70
K	19.50	20.00	20.50
L	1.90	2.05	2.20
N	10.80	10.90	11.00
Q	6.00	6.15	6.30
R	2.90	3.10	3.30
S	1.80	2.00	2.20
T	2.15	2.25	2.35
W	4.90	5.00	5.10
Z	6.00	6.15	6.30

STATIC CHARACTERISTICS (T_J = 25 °C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V _{CE(S)}	Collector-Emitter Breakdown Voltage	V _{GE} = 0V, I _C = 0.5mA	1200	--	--	V
V _{GE(th)}	Gate-Emitter Threshold Voltage	V _{GE} = V _{CE} , I _C = 1.0mA	5.0	--	6.5	V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 40A, V _{CE} = 15V	--	--	2.4	V
I _{CES}	Zero Gate Voltage Collector Current	V _{CE} =1200V, V _{GE} =0V	--	--	250	uA
I _{GES}	Gate-Emitter Leakage Current	V _{GE} = ±20V, V _{CE} =0V	--	--	±600	nA
V _F	Diode Forward Voltage	I _F =40A, V _{GE} =0V	--	--	3.05	V

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