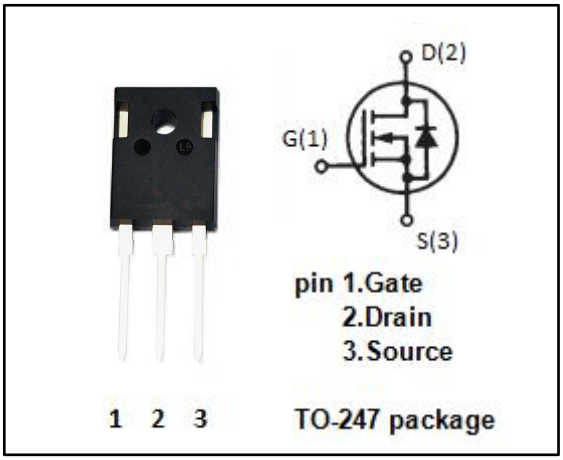
isc N-Channel MOSFET Transistor IXTH420N04T2

• FEATURES

- Static drain-source on-resistance:
  $R_{DS}(on) \leq 2m\Omega @ V_{GS}=10V$
- Fully characterized avalanche voltage and current
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATION

- DC/DC Converters
- High Current Switching Applications

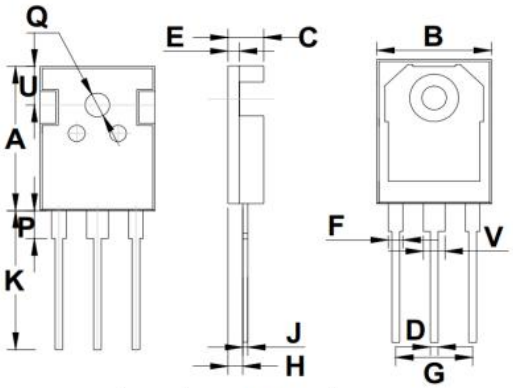


• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	40	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	420	A
I_{DM}	Drain Current-Single Pulsed	1050	A
P_D	Total Dissipation @T_C=25℃	935	W
T_j	Operating Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature	-55~175	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	0.16	℃/W



DIM	MM MIN	MM MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D = 250 μA	40		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D = 250 μA	1.5	3.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D= 100A		2	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}=0V		±200	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= V_{DSS}; V_{GS}= 0V		10	μA
		V_{DS}= V_{DSS}; V_{GS}= 0V;T_J= 150℃		300	
V_{SD}	Diode forward voltage	I_F= 100A; V_{GS} = 0V		1.3	V