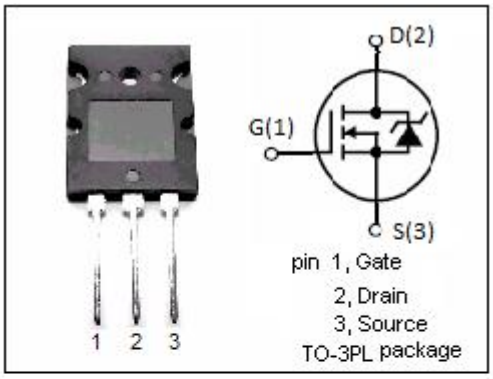
Isc N-Channel MOSFET Transistor IXTK102N30P

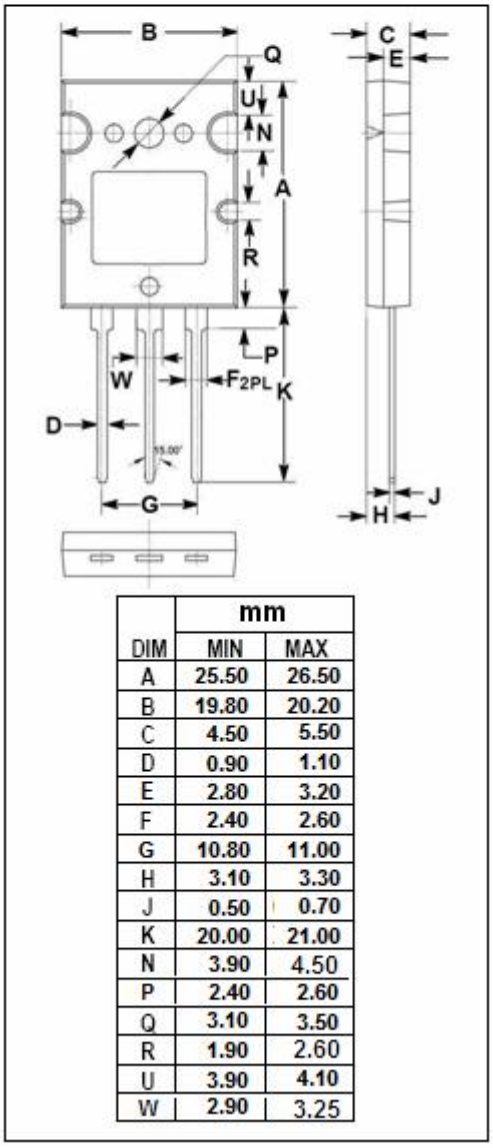


• FEATURES

- With To-3PL package
- Low input capacitance and gate charge
- Low gate input resistance
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Switching applications



DIM	mm MIN	MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	300	V
V_{GSS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	102	A
I_{DM}	Drain Current-Single Pulsed	250	A
P_D	Total Dissipation @T_C=25℃	700	W
T_{ch}	Max. Operating Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(ch-c)	Channel-to-case thermal resistance	0.18	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	62	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D=0.25mA	300			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D=0.5mA	2.5		5.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D=51A			33	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V;V_{DS}=0V			±0.2	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=300V; V_{GS}= 0V;Tj=25℃ V_{DS}=300V; V_{GS}= 0V;Tj=150℃			25 250	μA
V_{SDF}	Diode forward voltage	I_{SD}=102A, V_{GS} = 0 V			1.5	V