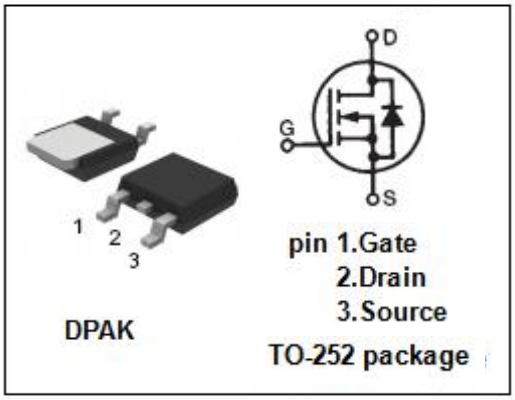
isc N-Channel MOSFET Transistor IXTY1R6N50P

• FEATURES

- Static drain-source on-resistance:
  $R_{DS}(on) \leq 6.5\Omega$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



• APPLICATION

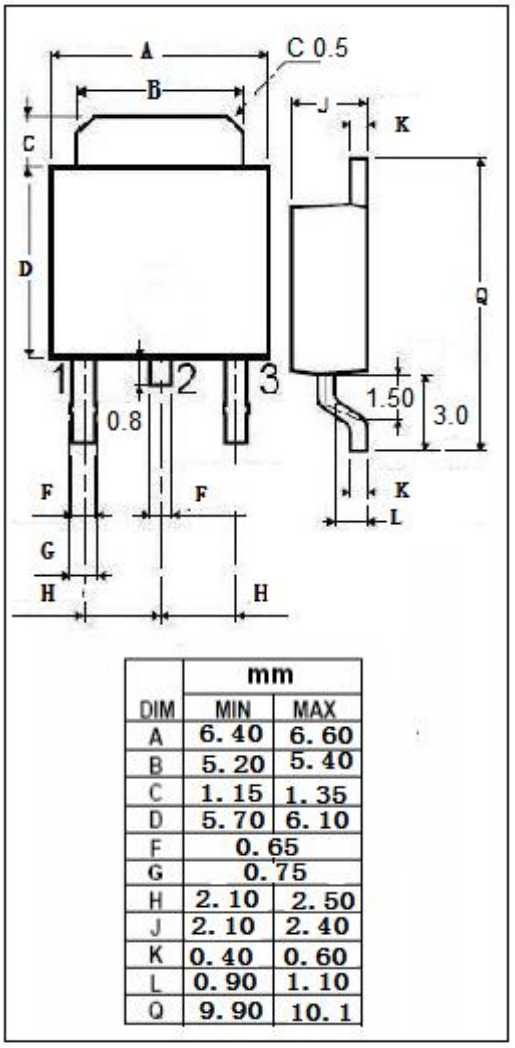
- DC/DC Converter
- Ideal for high-frequency switching and synchronous rectification

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Drain Current-Continuous	1.6	A
I_{DM}	Drain Current-Single Pulsed	2.5	A
P_D	Total Dissipation @T_C=25℃	43	W
T_j	Operating Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Junction-to-case thermal resistance	2.91	℃/W



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

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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 μ A	500		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D =250 μ A	3.0	5.5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}=10V; I_D= 0.8A		6.5	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±30V;V_{DS}=0V		±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= V_{DSS}; V_{GS}= 0V		5	μ A
		V_{DS}= V_{DSS}; V_{GS}= 0V;T_J= 125℃		50	
V_{SD}	Diode forward voltage	I_F= 1.6A; V_{GS} = 0V		1.5	V