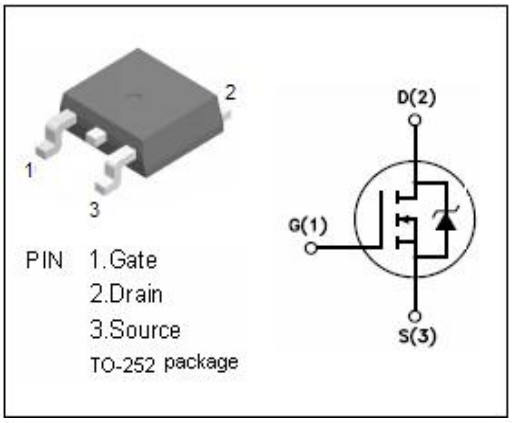
Isc N-Channel MOSFET Transistor IRLR014A

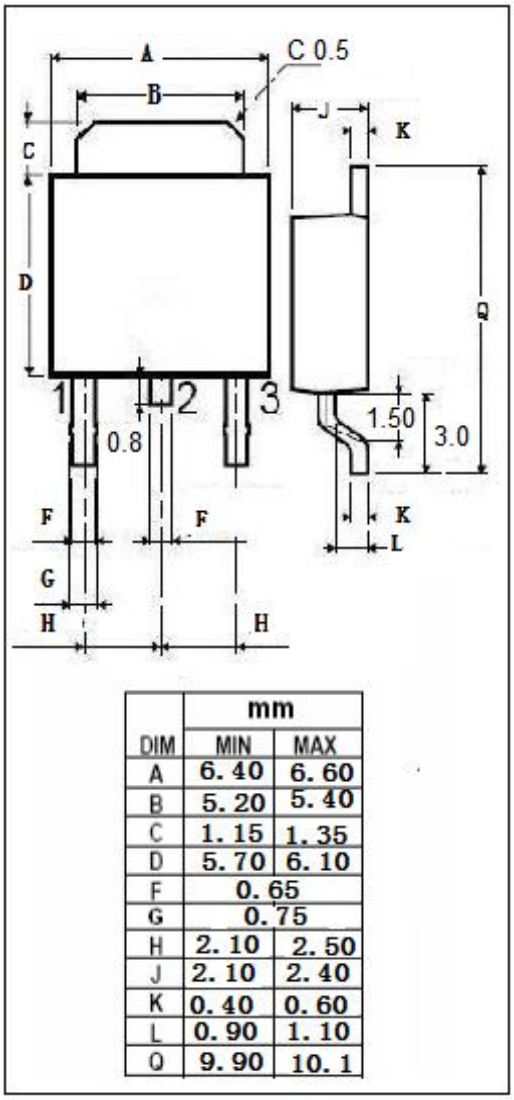


• FEATURES

- With To-252(DPAK) 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	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

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	50	V
V_{GSS}	Gate-Source Voltage	±10	V
I_D	Drain Current-Continuous Tc=25℃ Tc=100℃	7.7 4.9	A
I_{DM}	Drain Current-Single Pulsed	31	A
P_D	Total Dissipation @T_C=25℃	25	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	5.0	℃/W
Rth(ch-a)	Channel-to-ambient thermal resistance	50	℃/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	50			V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=5V; I_D=0.25mA	1.0		2.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 5V; I_D=4.6A			200	mΩ
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±10V;V_{DS}= 0V			±0.1	μA
I_{DSS}	Drain-Source Leakage Current	V_{DS}=60V; V_{GS}= 0V;Tj=25℃ V_{DS}=48V; V_{GS}= 0V;Tj=125℃			25 250	μA
V_{SDF}	Diode forward voltage	I_{SD}=7.7A, V_{GS} = 0 V			1.6	V