

## isc N-Channel Mosfet Transistor

## STD11NM60N-1

- FEATURES
- Drain Current I\_D= 10A@ T\_C=25 $^\circ\!\!\mathrm{C}$
- Drain Source Voltage-

: V<sub>DSS</sub>=600V(Min)

- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### • APPLICATIONS

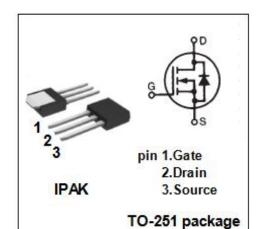
Switching applications

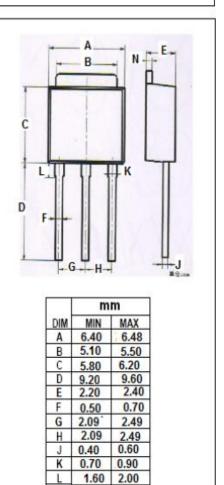
#### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT				
V <sub>DSS</sub>	Drain-Source Voltage	600	v				
V <sub>GS</sub>	Gate-Source Voltage	±25	v				
ID	Drain Current-continuous@ Tc=25℃	10	A				
I <sub>DM</sub>	Pulse Drain Current	40	A				
P <sub>tot</sub>	Total Dissipation@T <sub>C</sub> =25℃	90	w				
Tj	Max. Operating Junction Temperature	150	°C				
T <sub>stg</sub>	Storage Temperature Range	-55~150					
THERMAL CHARACTERISTICS							

# • THERMAL CHARACTERISTICS SYMBOL PARAMETER MAX UNIT Rth j-c Thermal Resistance, Junction to Case 1.38 °C/W

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0.40

0.60



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### **ELECTRICAL CHARACTERISTICS**

#### $T_{\text{C}}\text{=}25\,^\circ\!\!\!\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	МАХ	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 1mA	600			V
V <sub>GS</sub> (th)	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =250µA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =5A			450	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> =0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0			1	μA
		V <sub>DS</sub> = 600V; T <sub>C</sub> =125℃			10	
V <sub>SD</sub>	Diode Forward On-Voltage	I <sub>S</sub> = 10A ;V <sub>GS</sub> = 0			1.3	V

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