

# isc N-Channel MOSFET Transistor

# IXFH60N60X

**• FEATURES**

- With TO-247 packaging
- With low gate drive requirements
- Easy to drive
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

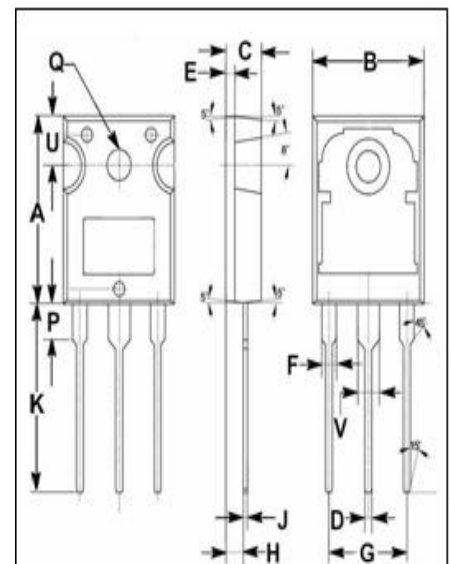
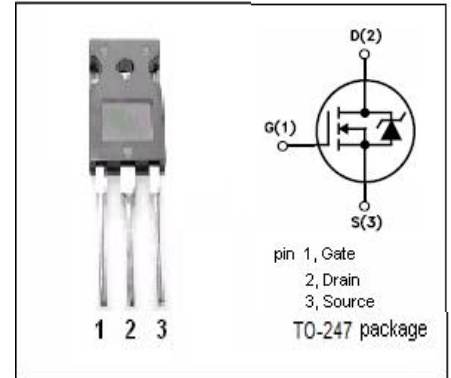
- Switching applications

**• ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	600	V
V <sub>GSS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-Continuous	60	A
I <sub>DM</sub>	Drain Current-Single Pulsed	120	A
P <sub>D</sub>	Total Dissipation	890	W
T <sub>j</sub>	Operating Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th(ch-c)</sub>	Channel-to-case thermal resistance	0.14	°C/W



DIM	mm	
	MIN	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

**isc N-Channel MOSFET Transistor****IXFH60N60X****ELECTRICAL CHARACTERISTICS**T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 1.0mA	300			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =8.0mA	2.5		4.5	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =30A			55	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±30V; V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0V; @T <sub>C</sub> =25°C V <sub>DS</sub> = 600V; V <sub>GS</sub> = 0V; T <sub>C</sub> =125°C			25 1250	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =60A, V <sub>GS</sub> = 0 V			1.4	V

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