

# Isc N-Channel MOSFET Transistor

# RFG70N06

### • FEATURES

- With TO-247 packaging
- UIS rating curve
- Peak current vs pulse width curve
- High power and current handling capability
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### • APPLICATIONS

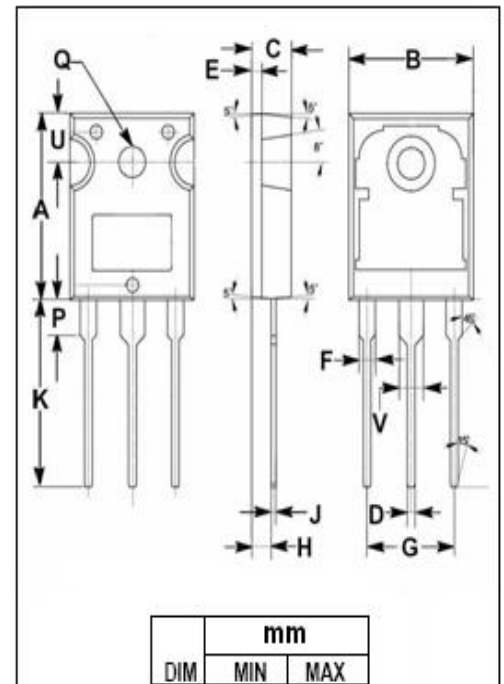
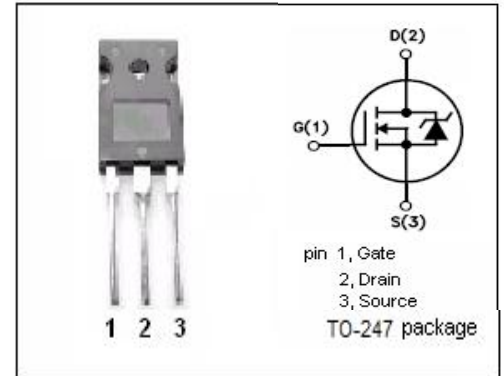
- High current switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	60	V
V <sub>GSS</sub>	Gate-Source Voltage	±20	V
I <sub>D</sub>	Drain Current-Continuous@T <sub>c</sub> =25°C	70	A
I <sub>DM</sub>	Drain Current-Single Pulsed	450	A
P <sub>D</sub>	Total Dissipation	150	W
T <sub>ch</sub>	Max. Operating Junction Temperature	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	1.0	°C/W
R <sub>th(ch-a)</sub>	Channel-to-ambient thermal resistance	80	°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****RFG70N06****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> = 0.25mA	60			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = ±20V; I <sub>D</sub> =0.25mA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =70A			14	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0V			±0.1	μA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =60V; V <sub>GS</sub> = 0V; T <sub>J</sub> =25°C T <sub>J</sub> =125°C			1 50	μA
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =70A, V <sub>GS</sub> = 0 V			1.5	V

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