

# isc N-Channel MOSFET Transistor

## **IRFP4227**, **IIRFP4227**

#### • FEATURES

- Static drain-source on-resistance:
  R<sub>DS</sub>(on)≤21mΩ
- Enhancement mode:
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

#### DESCRITION

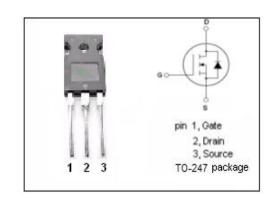
- High Repetitive Peak Current Capability for Reliable Operation
- Short fall & Rise Times For Fast Switching

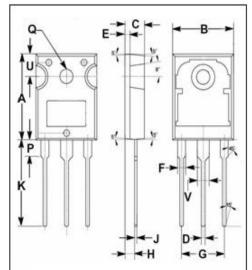
### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	200	V
V <sub>GS</sub>	Gate-Source Voltage	±30	V
I <sub>D</sub>	Drain Current-Continuous	65	А
I <sub>DM</sub>	Drain Current-Single Pulsed	260	А
$P_D$	Total Dissipation @T <sub>C</sub> =25°C	330	W
Tj	Max. Operating Junction Temperature	175	${\mathbb C}$
T <sub>stg</sub>	Storage Temperature	-40~175	$^{\circ}$

#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	0.45	°C/W
Rth(j-a)	(j-a) Channel-to-ambient thermal resistance		°C/W





1	mm		
DIM	MIN	MAX	
Α	19.80	20.20	
В	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	
Н	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	
٧	2.90	3.10	
Q	3.30 5.20	3.50 5.40	



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#### **ELECTRICAL CHARACTERISTICS**

T<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =250 μ A	200			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =250 μ A	3.0		5.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =46A			21	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V			±0.1	μ <b>A</b>
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =200V; V <sub>GS</sub> = 0V			20	μ <b>А</b>
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> =46A, V <sub>GS</sub> = 0V			1.3	V

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