

# iscN-Channel MOSFET Transistor

**IRFP150** 

### • FEATURES

- Low drain-source on-resistance:  $R_{DS}(ON) \leq 55m\Omega$  @V<sub>GS</sub>=10V
- Enhancement mode: Vth = 2.0 to 4.0V (Vps = 10 V, Ip=0.25mA)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### DESCRITION

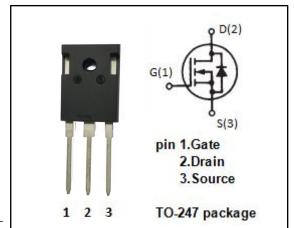
· Switching Voltage Regulators

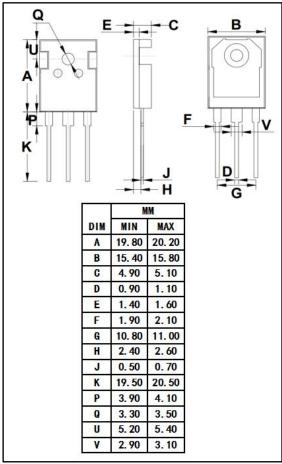
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	100	V
V <sub>GS</sub>	Gate-Source Voltage	tte-Source Voltage ±20	
ΙD	Drain Current-Continuous	А	
Ірм	Drain Current-Single Pulsed	160	А
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25°C 230		W
Тј	Max. Operating Junction Temperature -55~175		$^{\circ}$ C
T <sub>stg</sub>	Storage Temperature	-55~175	${\mathbb C}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	0.65	°C/W	







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#### **ELECTRICAL CHARACTERISTICS**

Tc=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> = 0.25mA	100			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = 10V; I <sub>D</sub> =0.25mA	2.0		4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> =10V; I <sub>D</sub> =25A			55	mΩ
lgss	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0V			±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =100V; V <sub>GS</sub> = 0V V <sub>DS</sub> =80V; V <sub>GS</sub> = 0V;T <sub>J</sub> =125°C			25 250	uA
V <sub>SDF</sub>	Diode forward voltage	I <sub>DR</sub> =41A, V <sub>GS</sub> = 0 V			2.5	V

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