

## **INCHANGE SEMICONDUCTOR**

# **Isc N-Channel MOSFET Transistor**

# **IRF630NS**

### • FEATURES

- With TO-263( D<sup>2</sup> PAK ) packaging
- · High speed switching
- · Low gate input resistance
- Standard level gate drive
- · Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

- Power supply
- Switching applications

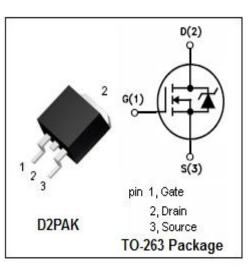
### • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

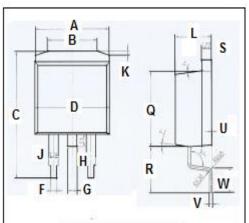
SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>DSS</sub>	Drain-Source Voltage	V		
$V_{GS}$	Gate-Source Voltage	±20	V	
ID	Drain Current-Continuous	А		
P <sub>D</sub>	Total Dissipation @Tc=25°C	ation @T <sub>c</sub> =25°C 82		
Tj	Max. Operating Junction Temperature	-55~175	°C	
T <sub>stg</sub>	Storage Temperature -55~175		°C	

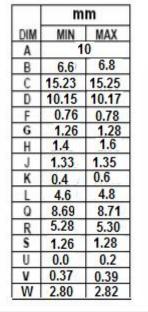
#### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	МАХ	UNIT
Rth(j-c)	Channel-to-case thermal resistance	1.83	°C/W

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### **ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	МАХ	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 250uA	200			V
V <sub>GS</sub> (th)	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 250uA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 5.4A			300	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	$V_{GS}$ = ±20V; $V_{DS}$ = 0V			±100	nA
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> = 200V; V <sub>GS</sub> = 0V			25	μA
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = 5.4A, V <sub>GS</sub> = 0V			1.3	V



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