

Isc N-Channel MOSFET Transistor

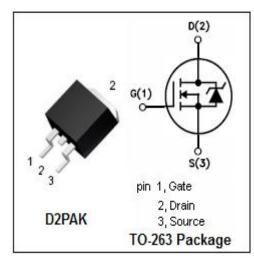
IRF530NS

• FEATURES

- · With To-263(D2PAK) package
- · Low input capacitance and gate charge
- · Low gate input resistance
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



Switching applications

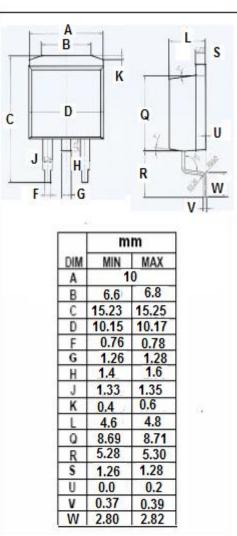


• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	100	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-ContinuousTc=25℃ Tc=100℃	17 12	А
I _{DM}	Drain Current-Single Pulsed	60	А
P _D	Total Dissipation @Tc=25℃	70	W
T _{ch}	Max. Operating Junction Temperature	175	$^{\circ}\mathbb{C}$
T _{stg}	Storage Temperature	-55~175	$^{\circ}$ C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	2.15	°C/W	
Rth(ch-a)	Channel-to-ambient thermal resistance	40	°C/W	



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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	100			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	2.0		4.0	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =9A			90	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V;V _{DS} = 0V			±0.1	μА
I _{DSS}	Drain-Source Leakage Current	V _{DS} =100V; V _{GS} = 0V;Tj=25°C V _{DS} =80V; V _{GS} = 0V;Tj=125°C			25 250	μА
V _{SDF}	Diode forward voltage	I _{SD} =9.0A, V _{GS} = 0 V			1.3	V

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