

isc N-Channel MOSFET Transistor

IRFU9N20D

• FEATURES

- With TO-251(IPAK) packaging
- · High speed switching
- Easy to use
- 100% avalanche tested
- · Minimum Lot-to-Lot variations for robust device performance and reliable operation



- Power supply
- DC-DC converters
- Motor control
- · Switching applications



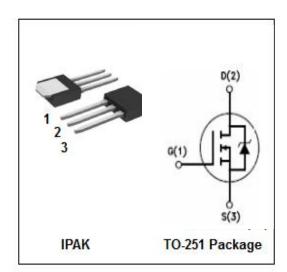


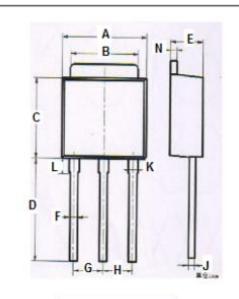
• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	200	V
V _{GSS}	Gate-Source Voltage	±30	V
I _D	Drain Current-Continuous	9.4	А
I _{DM}	Drain Current-Single Pulsed	38	А
P _D	Total Dissipation	86	W
Tj	Operating Junction Temperature	-55~175	$^{\circ}\!\mathbb{C}$
T _{stg}	Storage Temperature	-55~175	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	1.4	°C/W	
Rth(ch-a)	Channel-to-ambient thermal resistance	50	°C/W	





	mm		
DIM	MIN	MAX	
Α	6.40	6.48	
В	5.10	5.50	
C	5.80	6.20	
D	9.20	9.60	
E	2.20	2.40	
F	0.50	0.70	
G	2.09	2.49	
Н	2.09	2.49	
J	0.40	0.60	
K	0.70	0.90	
L	1.60	2.00	
N	0.40	0.60	

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	200			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	3.0		5.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =5.6A			380	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±30V;V _{DS} = 0V			±0.1	μА
I _{DSS}	Drain-Source Leakage Current	V _{DS} = 200V; V _{GS} = 0V;Tj=25°C V _{DS} = 160V; V _{GS} = 0V;Tj=125°C			25 250	μА
V _{SDF}	Diode forward voltage	I _{SD} =5.6A, V _{GS} =0V			1.3	V



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