

# isc P-Channel MOSFET Transistor

# IRFU9024N

### ·FEATURES

- Static drain-source on-resistance:  $R_{DS}(on) \leq 175 m\Omega(@V_{GS} = -10V; I_D = -6.6A)$
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

• Fast switching application.

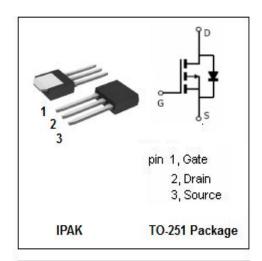


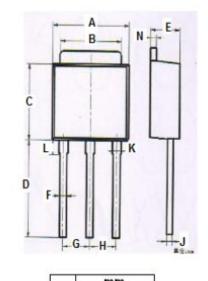
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	-55	V
V <sub>GS</sub>	Gate-Source Voltage	±20	V
Ι <sub>D</sub>	Drain Current-Continuous	-11	Α
P <sub>D</sub>	Total Dissipation @Tc=25°C 28		W
Tj	Max. Operating Junction Temperature	-55~150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	-55~150	$^{\circ}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	3.3	°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<sub>C</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = -250uA	-55		V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = -1.7mA	-2	-4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = -10V; I <sub>D</sub> = -6.6A		175	mΩ
Igss	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> = -55V; V <sub>GS</sub> = 0V		-25	μА
V <sub>SD</sub>	Diode forward voltage	I <sub>S</sub> = -7.2A, V <sub>GS</sub> = 0V		-1.6	V



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