

## isc P-Channel MOSFET Transistor

## IRFU9024N

## • FEATURES

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

## • APPLICATIONS

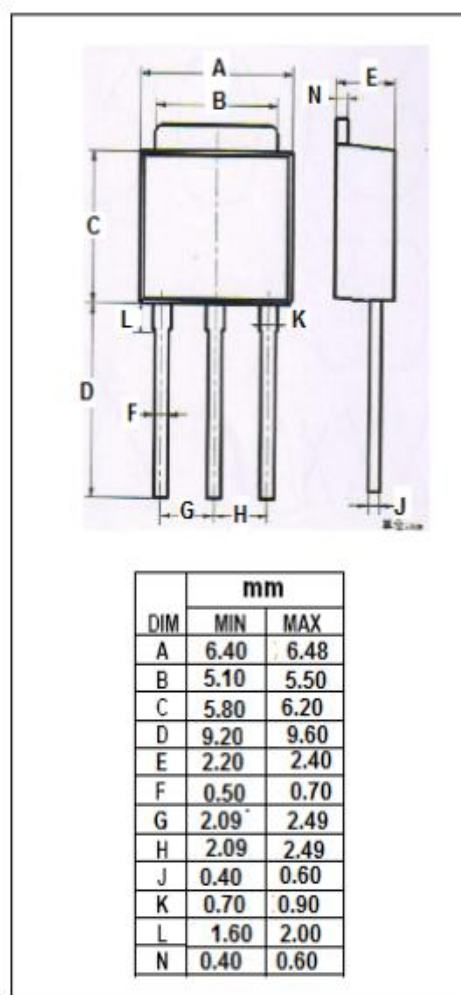
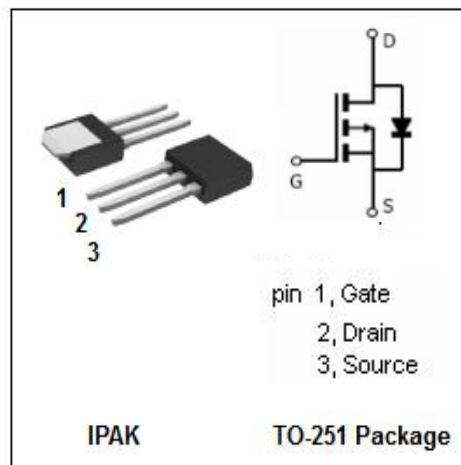
- Fast switching application.

• ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage	-55	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-Continuous	-11	A
$P_D$	Total Dissipation @ $T_c=25^\circ\text{C}$	28	W
$T_j$	Max. Operating Junction Temperature	-55~150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$

## • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	3.3	$^\circ\text{C/W}$



**isc P-Channel MOSFET Transistor****IRFU9024N****ELECTRICAL CHARACTERISTICS****T<sub>C</sub>=25°C 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
I <sub>GSS</sub>	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	μA
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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