

# **Isc N-Channel MOSFET Transistor**

# IPB048N15N5

#### • FEATURES

- With TO-263( D2 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

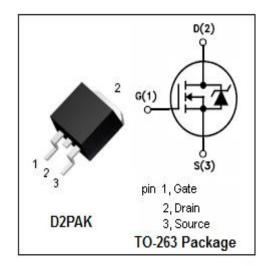
- Power supply
- Switching applications

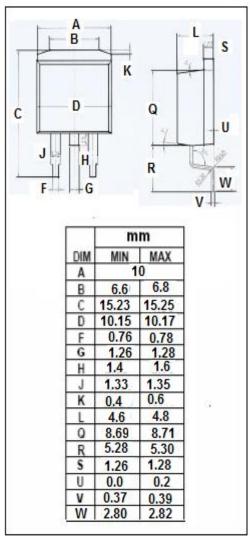
## • ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT	
V <sub>DSS</sub>	Drain-Source Voltage	150	V	
V <sub>G</sub> s	Gate-Source Voltage	±20	V	
I <sub>D</sub>	Drain Current-Continuous	120	А	
P <sub>D</sub>	Total Dissipation @T <sub>C</sub> =25℃	300	W	
Тј	Max. Operating Junction Temperature -55~175		°C	
T <sub>stg</sub>	Storage Temperature	-55~175	°C	

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
Rth(j-c)	Channel-to-case thermal resistance	0.5	°C/W







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#### **ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> = 1mA	150			V
$V_{\text{GS(th)}}$	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> = 264 μ A	3	3.8	4.6	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> = 60A	3.7		4.8	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> = 120V; V <sub>GS</sub> = 0V		0.1	1	μА
$V_{SD}$	Diode forward voltage	I <sub>S</sub> = 60A, V <sub>GS</sub> = 0V		0.85	1.1	V



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