

# **Isc N-Channel MOSFET Transistor**

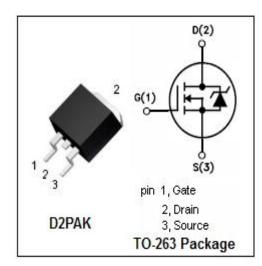
## **IPB407N30N**

### • 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

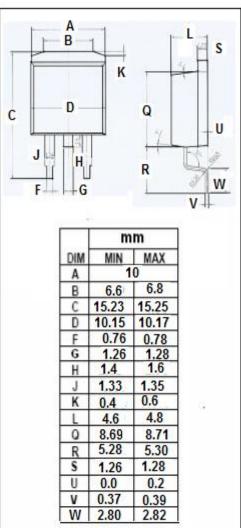


• ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>DSS</sub>	Drain-Source Voltage	300	V
V <sub>GSS</sub>	Gate-Source Voltage	±20	۸V
I <sub>D</sub>	Drain Current-ContinuousTc=25℃ Tc=100℃	44 34	А
I <sub>DM</sub>	Drain Current-Single Pulsed	176	А
P <sub>D</sub>	Total Dissipation @Tc=25℃	300	W
T <sub>ch</sub>	Max. Operating Junction Temperature	175	${\mathbb C}$
T <sub>stg</sub>	Storage Temperature	-55~175	$^{\circ}$

### • THERMAL CHARACTERISTICS

SYMBOL	PARAMETER		UNIT	
Rth(ch-c)	Channel-to-case thermal resistance	0.5	°C/W	
Rth(ch-a)	n(ch-a) Channel-to-ambient thermal resistance		°C/W	



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#### **ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	ТҮР	MAX	UNIT
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V; I <sub>D</sub> =1.0mA	200			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> ; I <sub>D</sub> =0.27mA	2.0		4.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =44A		36	40.7	mΩ
I <sub>GSS</sub>	Gate-Source Leakage Current	V <sub>GS</sub> = ±20V;V <sub>DS</sub> =0V			±0.1	μА
I <sub>DSS</sub>	Drain-Source Leakage Current	V <sub>DS</sub> =240V; V <sub>GS</sub> = 0V;Tj=25°C V <sub>DS</sub> =240V; V <sub>GS</sub> = 0V;Tj=125°C			10 300	μА
V <sub>SDF</sub>	Diode forward voltage	I <sub>SD</sub> =44A, V <sub>GS</sub> = 0 V		0.9	1.2	V

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