

Isc N-Channel MOSFET Transistor

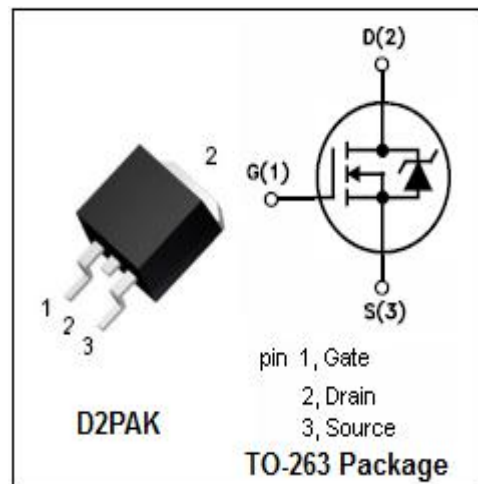
IRF3007S

• 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

• APPLICATIONS

- Switching applications

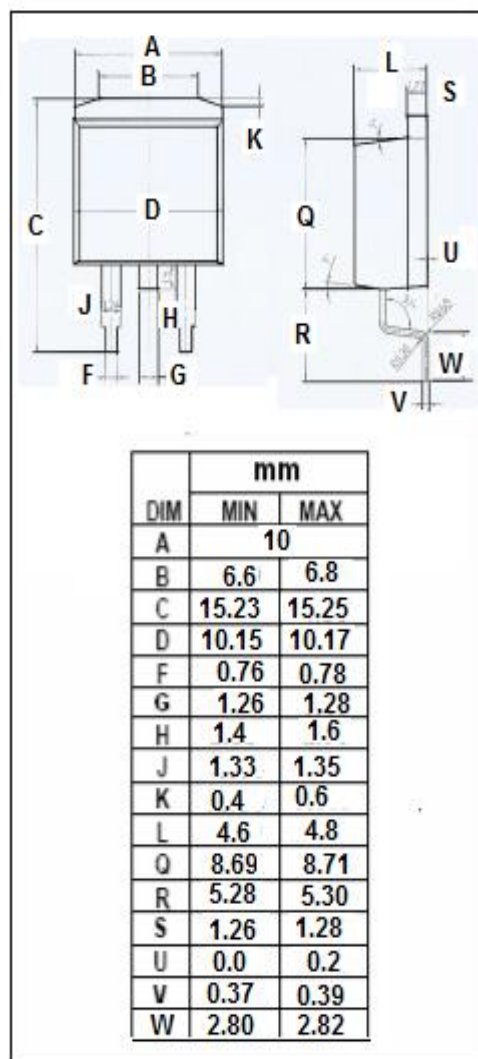


• ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{DSS}	Drain-Source Voltage	75	V
V _{GSS}	Gate-Source Voltage	±20	V
I _D	Drain Current-Continuous T _c =25°C T _c =100°C	62 44	A
I _{DM}	Drain Current-Single Pulsed	320	A
P _D	Total Dissipation @T _c =25°C	120	W
T _{ch}	Max. Operating Junction Temperature	175	°C
T _{stg}	Storage Temperature	-55~175	°C

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th(ch-c)}	Channel-to-case thermal resistance	1.25	°C/W
R _{th(ch-a)}	Channel-to-ambient thermal resistance	62	°C/W



Isc N-Channel MOSFET Transistor**IRF3007S****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V; I _D = 0.25mA	75			V
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} ; I _D =0.25mA	2.0		3.5	V
R _{DS(on)}	Drain-Source On-Resistance	V _{GS} = 10V; I _D =48A		10.5	12.6	mΩ
I _{GSS}	Gate-Source Leakage Current	V _{GS} = ±20V; V _{DS} = 0V			±0.2	μA
I _{DSS}	Drain-Source Leakage Current	V _{DS} =75V; V _{GS} = 0V; T _j =25°C V _{DS} =60V; V _{GS} = 0V; T _j =125°C			20 250	μA
V _{SDF}	Diode forward voltage	I _{SD} =48A, V _{GS} = 0 Vs			1.3	V

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