

# isc N-Channel MOSFET Transistor

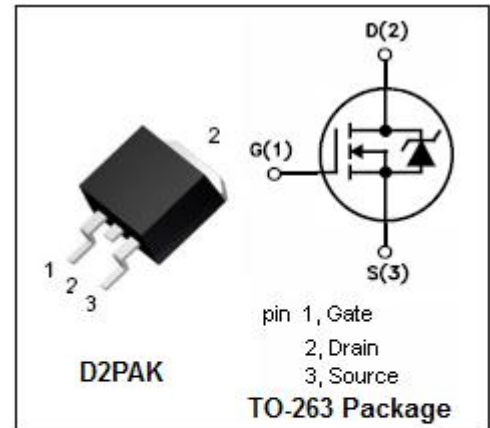
# IRF2804S

### DESCRIPTION

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 6m\Omega @ V_{GS} = 10V$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

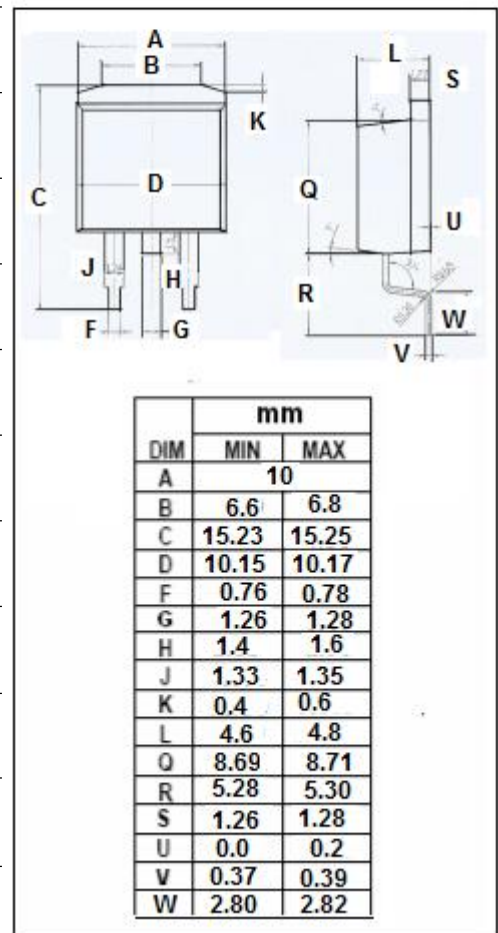
### APPLICATIONS

- Provides the designer with an extremely efficient and reliable device for use in a wide variety of applications.



### ABSOLUTE MAXIMUM RATINGS( $T_C=25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DS}$	Drain-Source Voltage ( $V_{GS}=0$ )	40	V
$V_{GS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Drain Current-continuous@ $T_C=100^\circ C$	200	A
$I_{DM}$	Pulse Drain Current	1080	A
$P_{tot}$	Total Dissipation	330	W
$T_j$	Max. Operating Junction Temperature	175	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~175	$^\circ C$



### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	0.45	$^\circ C/W$

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• ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
V <sub>(BR)DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> = 0; I <sub>D</sub> = 250μA	40			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =250μA	2		4	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =75A			2	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±20V; V <sub>DS</sub> = 0			±100	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 40V; V <sub>GS</sub> = 0; T <sub>J</sub> =25°C			20	μA
		V <sub>DS</sub> = 40V; V <sub>GS</sub> = 0; T <sub>J</sub> =125°C			250	
V <sub>SD</sub>	Diode Forward On-Voltage	I <sub>S</sub> = 75A; V <sub>GS</sub> = 0			1.3	V

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