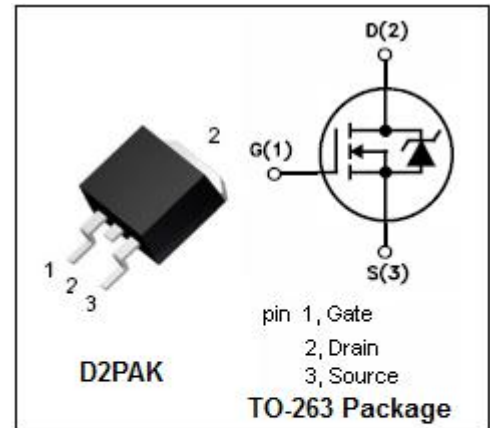


**isc N-Channel MOSFET Transistor**
**IRF3708S**
**• DESCRIPTION**

- Static drain-source on-resistance:  
 $R_{DS(on)} \leq 12m\Omega @ V_{GS} = 10V$
- Drain Source Voltage  
 $V_{DSS} = 30V(\text{Min})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**• APPLICATIONS**

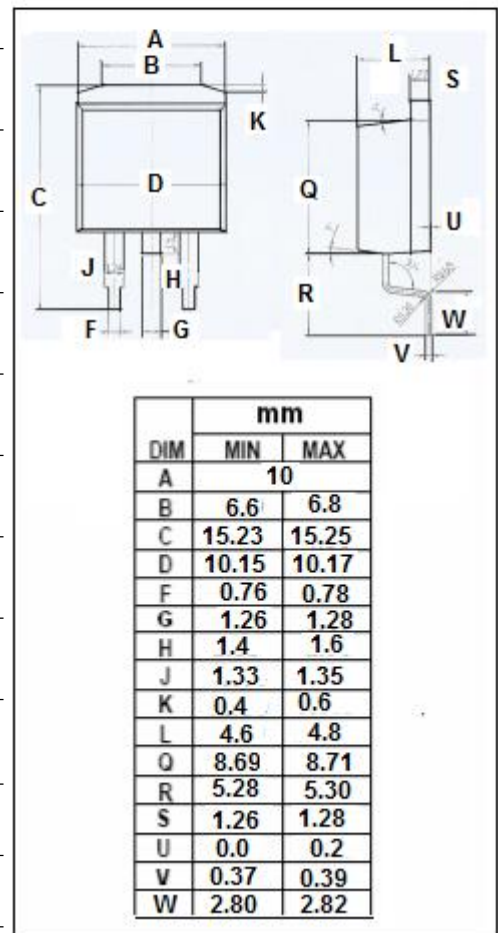
- High Frequency Synchronous Buck Converters for Computer Processor Power.


**ABSOLUTE MAXIMUM RATINGS( $T_C=25^\circ\text{C}$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{DSS}$	Drain-Source Voltage ( $V_{GS}=0$ )	30	V
$V_{GS}$	Gate-Source Voltage	$\pm 12$	V
$I_D$	Drain Current-continuous	62	A
$I_{D(puls)}$	Pulse Drain Current	248	A
$P_{tot}$	Total Dissipation	87	W
$T_j$	Max. Operating Junction Temperature	175	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~175	$^\circ\text{C}$

**• THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.73	$^\circ\text{C/W}$



## isc N-Channel MOSFET Transistor

## IRF3708S

• 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	30			V
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> = V <sub>GS</sub> ; I <sub>D</sub> =250μA	0.6		2.0	V
R <sub>DS(on)</sub>	Drain-Source On-Resistance	V <sub>GS</sub> = 10V; I <sub>D</sub> =15A			12	mΩ
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±12V; V <sub>DS</sub> = 0			±200	nA
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> = 24V; V <sub>GS</sub> = 0; T <sub>J</sub> =25°C			20	μA
		V <sub>DS</sub> = 24V; V <sub>GS</sub> = 0; T <sub>J</sub> =125°C			100	
V <sub>SD</sub>	Diode Forward On-Voltage	I <sub>S</sub> = 30A; V <sub>GS</sub> = 0			1.3	V

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