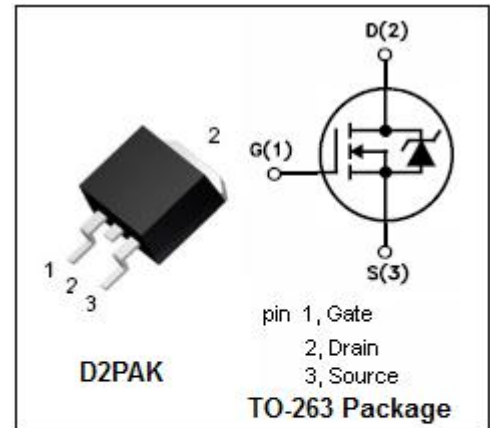


isc N-Channel MOSFET Transistor
IRF3708S
• DESCRIPTION

- 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

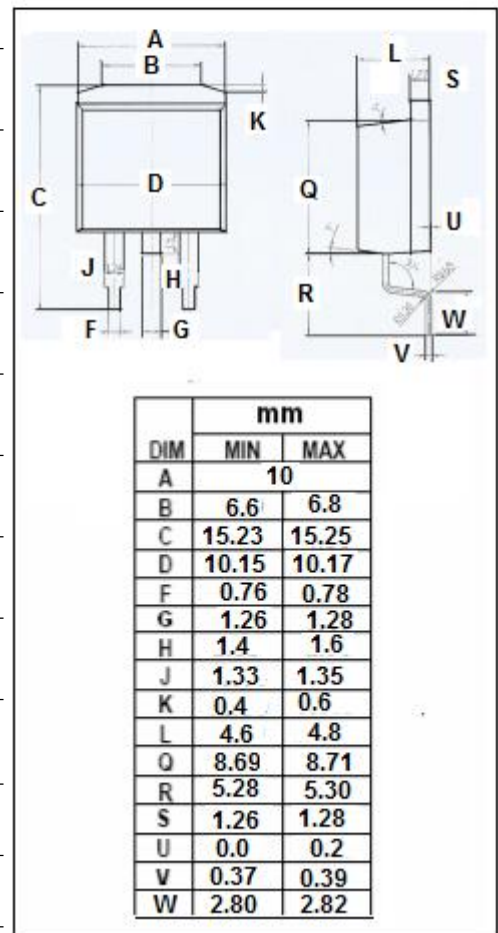
- High Frequency Synchronous Buck Converters for Computer Processor Power.


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 | ± 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_c=25°C)

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYPE | MAX | UNIT |
|----------------------|---------------------------------|---|-----|------|------|------|
| V _{(BR)DSS} | Drain-Source Breakdown Voltage | V _{GS} = 0; I _D = 250μA | 30 | | | V |
| V _{GS(th)} | Gate Threshold Voltage | V _{DS} = V _{GS} ; I _D =250μA | 0.6 | | 2.0 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = 10V; I _D =15A | | | 12 | mΩ |
| I _{GSS} | Gate-Body Leakage Current | V _{GS} = ±12V; V _{DS} = 0 | | | ±200 | nA |
| I _{DSS} | Zero Gate Voltage Drain Current | V _{DS} = 24V; V _{GS} = 0; T _J =25°C | | | 20 | μA |
| | | V _{DS} = 24V; V _{GS} = 0; T _J =125°C | | | 100 | |
| V _{SD} | Diode Forward On-Voltage | I _S = 30A; V _{GS} = 0 | | | 1.3 | V |

NOTICE:

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