

isc P-Channel MOSFET Transistor

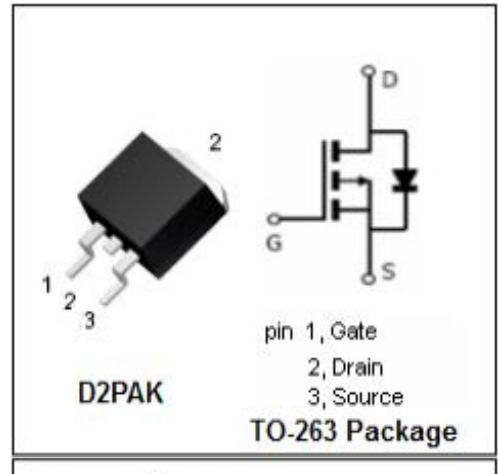
IRF6218S

• FEATURES

- Static drain-source on-resistance:
 $R_{DS(on)} \leq 150\text{m}\Omega (@V_{GS} = -10\text{V}; I_D = -16\text{A})$
- Advanced trench process technology
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

- Fast switching application.

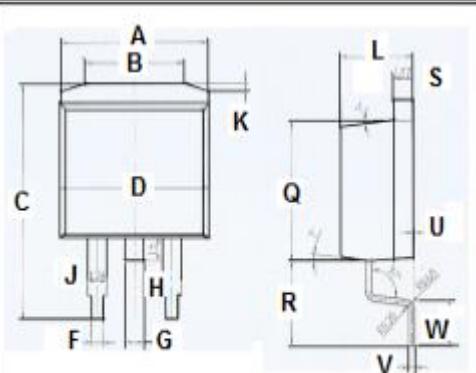


• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------------|
| V_{DSS} | Drain-Source Voltage | 150 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-Continuous | -27 | A |
| P_D | Total Dissipation @ $T_c=25^\circ\text{C}$ | 250 | W |
| T_J | Max. Operating Junction Temperature | -55~175 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | -55~175 | $^\circ\text{C}$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|------------------------------------|------|---------------------------|
| $R_{th(j-c)}$ | Channel-to-case thermal resistance | 0.61 | $^\circ\text{C}/\text{W}$ |



| DIM | mm | |
|-----|-------|-------|
| | MIN | MAX |
| A | 10 | |
| B | 6.6 | 6.8 |
| C | 15.23 | 15.25 |
| D | 10.15 | 10.17 |
| F | 0.76 | 0.78 |
| G | 1.26 | 1.28 |
| H | 1.4 | 1.6 |
| J | 1.33 | 1.35 |
| K | 0.4 | 0.6 |
| L | 4.6 | 4.8 |
| Q | 8.69 | 8.71 |
| R | 5.28 | 5.30 |
| S | 1.26 | 1.28 |
| U | 0.0 | 0.2 |
| V | 0.37 | 0.39 |
| W | 2.80 | 2.82 |

isc P-Channel MOSFET Transistor**IRF6218S****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|---------------------|--------------------------------|--|------|-----------|------------------|
| BV _{DSS} | Drain-Source Breakdown Voltage | V _{GS} =0V; I _D = -250 μA | -150 | | V |
| V _{G(th)} | Gate Threshold Voltage | V _{DS} =V _{GS} ; I _D = -250 μA | -3 | -5 | V |
| R _{DS(on)} | Drain-Source On-Resistance | V _{GS} = -10V; I _D = -16A | | 150 | $\text{m}\Omega$ |
| I _{GSS} | Gate-Source Leakage Current | V _{GS} = \pm 20V; V _{DS} = 0V | | \pm 100 | nA |
| I _{DSS} | Drain-Source Leakage Current | V _{DS} = -120V; V _{GS} = 0V | | -25 | μA |
| V _{SD} | Diode forward voltage | I _S = -16A, V _{GS} = 0V | | -1.6 | V |

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