

Isc N-Channel MOSFET Transistor

IRFSL23N20D

• FEATURES

- With TO-262 packaging
- High speed switching
- Low gate input resistance
- Standard level gate drive
- Easy to use
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• APPLICATIONS

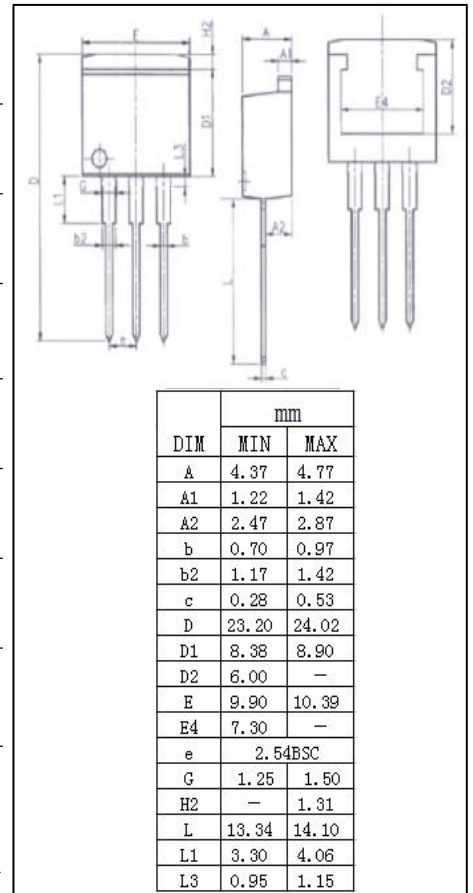
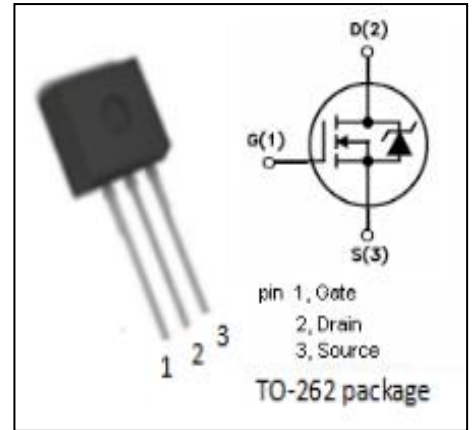
- Power supply
- Switching applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|----------|------------------|
| V_{DS} | Drain-Source Voltage | 200 | V |
| V_{GS} | Gate-Source Voltage | ± 30 | V |
| I_D | Drain Current-Continuous | 24 | A |
| P_D | Total Dissipation @ $T_c=25^\circ\text{C}$ | 3.8 | 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 | 0.9 | $^\circ\text{C/W}$ |



Isc N-Channel MOSFET Transistor**IRFSL23N20D****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------|--------------------------------|---------------------------------------|-----|-----|-----------|------------------|
| BV_{DSS} | Drain-Source Breakdown Voltage | $V_{GS}=0V; I_D=1\text{mA}$ | 200 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}=V_{GS}; I_D=250\ \mu\text{A}$ | 3 | | 5.5 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}=10V; I_D=14\text{A}$ | | | 100 | $\text{m}\Omega$ |
| I_{GSS} | Gate-Source Leakage Current | $V_{GS}=\pm 30V; V_{DS}=0V$ | | | ± 100 | nA |
| I_{DSS} | Drain-Source Leakage Current | $V_{DS}=200V; V_{GS}=0V$ | | | 25 | μA |
| V_{SD} | Diode forward voltage | $I_s=14\text{A}, V_{GS}=0V$ | | | 1.3 | V |

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