

# **Isc N-Channel MOSFET Transistor**

IRFSL7762

#### FEATURES

- · With To-262 package
- · Low input capacitance and gate charge
- · Low gate input resistance
- · 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

· Switching applications



| • ABSOLUTE MAXIMUM RATINGS(T <sub>a</sub> =25°C) |  |          |      |  |  |  |  |
|--|--|----------|------|--|--|--|--|
| SYMBOL   | PARAMETER                              | VALUE    | UNIT |  |  |  |  |
| V <sub>DSS</sub>                                 | Drain-Source Voltage                   | 75       | V    |  |  |  |  |
| $V_{GSS}$  | Gate-Source Voltage                    | ±20      | V    |  |  |  |  |
| l <sub>D</sub>                                   | Drain Current-ContinuousTc=25℃ Tc=100℃ | 85<br>60 | А    |  |  |  |  |
| I <sub>DM</sub>                                  | Drain Current-Single Pulsed            | 335      | А    |  |  |  |  |
| P <sub>D</sub>                                   | Total Dissipation @T <sub>C</sub> =25℃ | 140      | W    |  |  |  |  |
| T <sub>ch</sub>                                  | Max. Operating Junction Temperature    | 175      | °C   |  |  |  |  |
|  | 7                                      |          |      |  |  |  |  |

-55~175

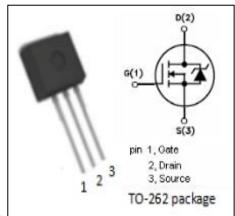
 $^{\circ}\!\mathbb{C}$ 

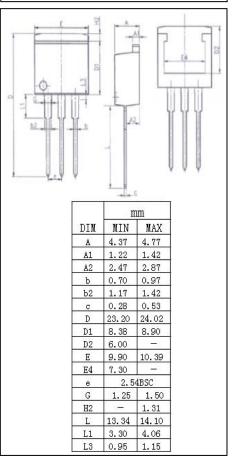
## THERMAL CHARACTERISTICS

 $T_{\text{stg}}$ 

Storage Temperature

| SYMBOL    | PARAMETER                                   | MAX  | UNIT |  |
|-----------|---|------|------|--|
| Rth(ch-c) | Channel-to-case thermal resistance          | 1.05 | °C/W |  |
| Rth(ch-a) | ch-a) Channel-to-ambient thermal resistance |      | °C/W |  |







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#### **ELECTRICAL CHARACTERISTICS**

 $T_C=25^{\circ}C$  unless otherwise specified

| SYMBOL              | PARAMETER                      | CONDITIONS  | MIN | TYP | MAX      | UNIT |
|---------------------|--------------------------------|---|-----|-----|----------|------|
| BV <sub>DSS</sub>   | Drain-Source Breakdown Voltage | V <sub>GS</sub> =0V; I <sub>D</sub> = 0.25mA  | 75  |     |          | V    |
| V <sub>GS(th)</sub> | Gate Threshold Voltage         | $V_{DS}$ = $V_{GS}$ ; $I_D$ =0.1mA  | 2.1 |     | 3.7      | V    |
| R <sub>DS(on)</sub> | Drain-Source On-Resistance     | V <sub>GS</sub> = 10V; I <sub>D</sub> =51A  |     | 5.6 | 6.7      | mΩ   |
| lgss                | Gate-Source Leakage Current    | V <sub>GS</sub> = ±20V;V <sub>DS</sub> = 0V   |     |     | ±0.1     | μА   |
| I <sub>DSS</sub>    | Drain-Source Leakage Current   | V <sub>DS</sub> =75V; V <sub>GS</sub> = 0V;Tj=25°C<br>V <sub>DS</sub> =75V; V <sub>GS</sub> = 0V;Tj=125°C |     |     | 1<br>150 | μА   |
| V <sub>SDF</sub>    | Diode forward voltage          | I <sub>SD</sub> =51A, V <sub>GS</sub> = 0 Vs  |     | 1.0 | 1.2      | V    |



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