

Isc N-Channel MOSFET Transistor

IRF540ZL

• FEATURES

- With To-263(D2PAK) 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

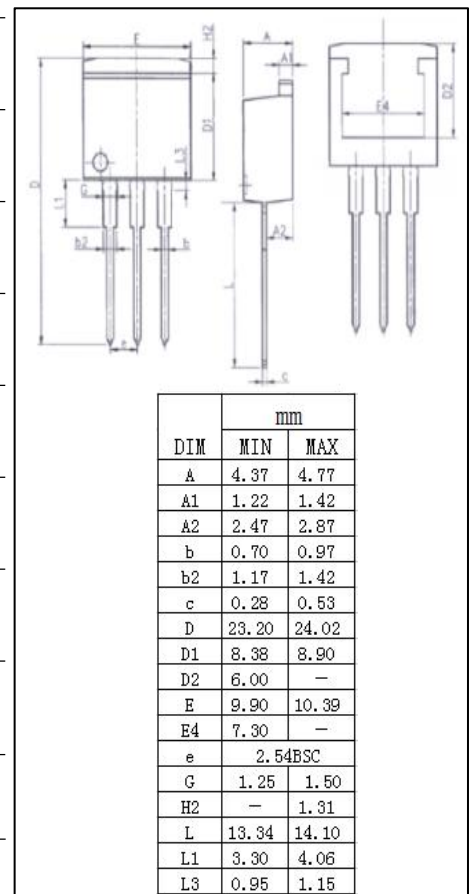
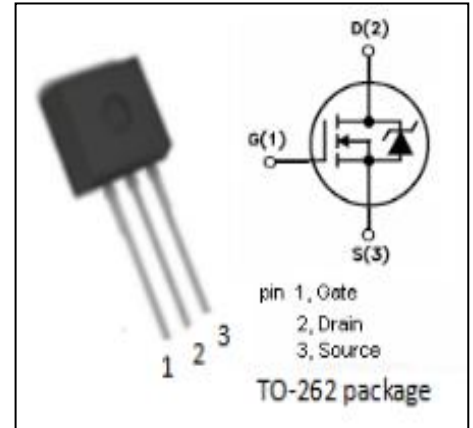
- Switching applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|----------|--------------------|
| V_{DS} | Drain-Source Voltage | 100 | V |
| V_{GS} | Gate-Source Voltage | ± 20 | V |
| I_D | Drain Current-Continuous $T_c=25^{\circ}\text{C}$ $T_c=100^{\circ}\text{C}$ | 36 25 | A |
| I_{DM} | Drain Current-Single Pulsed | 140 | A |
| P_D | Total Dissipation @ $T_c=25^{\circ}\text{C}$ | 92 | W |
| T_{ch} | Max. Operating Junction Temperature | 175 | $^{\circ}\text{C}$ |
| T_{stg} | Storage Temperature | -55~175 | $^{\circ}\text{C}$ |

• THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|----------------|------------------------------------|------|-----------------------------|
| $R_{th(ch-c)}$ | Channel-to-case thermal resistance | 1.64 | $^{\circ}\text{C}/\text{W}$ |



Isc N-Channel MOSFET Transistor**IRF540ZL****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP | MAX | UNIT |
|--------------|--------------------------------|--|-----|-----|-----------|-----------|
| BV_{DSS} | Drain-Source Breakdown Voltage | $V_{GS}=0V; I_D=0.25mA$ | 100 | | | V |
| $V_{GS(th)}$ | Gate Threshold Voltage | $V_{DS}=V_{GS}; I_D=0.25mA$ | 2.0 | | 4.0 | V |
| $R_{DS(on)}$ | Drain-Source On-Resistance | $V_{GS}=10V; I_D=22A$ | | 21 | 26.5 | $m\Omega$ |
| I_{GSS} | Gate-Source Leakage Current | $V_{GS}=\pm 20V; V_{DS}=0V$ | | | ± 0.2 | μA |
| I_{DSS} | Drain-Source Leakage Current | $V_{DS}=100V; V_{GS}=0V; T_j=25^{\circ}\text{C}$ $V_{DS}=80V; V_{GS}=0V; T_j=125^{\circ}\text{C}$ | | | 20 250 | μA |
| V_{SDF} | Diode forward voltage | $I_{SD}=22A, V_{GS}=0V$ | | | 1.3 | V |

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