



60V 7.4mΩ N-Ch Power MOSFET

Features

- Low  $R_{DS(ON)}$
- Low Gate Charge
- 100% UIS Tested, 100%  $R_g$  Tested
- Pb-free Lead Plating
- Halogen-free and RoHS-compliant

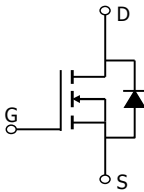
Product Summary

| Parameter                                | Value | Unit |
|------------------------------------------|-------|------|
| $V_{DS}$                                 | 60    | V    |
| $V_{GS(th)}$ _Typ                        | 1.6   | V    |
| $I_D$ (@ $V_{GS} = 10V$ ) <sup>(1)</sup> | 56    | A    |
| $R_{DS(ON)}$ _Typ (@ $V_{GS} = 10V$ )    | 7.4   | mΩ   |
| $R_{DS(ON)}$ _Typ (@ $V_{GS} = 4.5V$ )   | 9.5   | mΩ   |

Applications

- Power Management in Telecom., Industrial Automation, CE
- Motor Driving in Power Tool, E-vehicle, Robotics
- Current Switching in DC/DC & AC/DC (SR) Sub-systems

TO-252-3L Top View

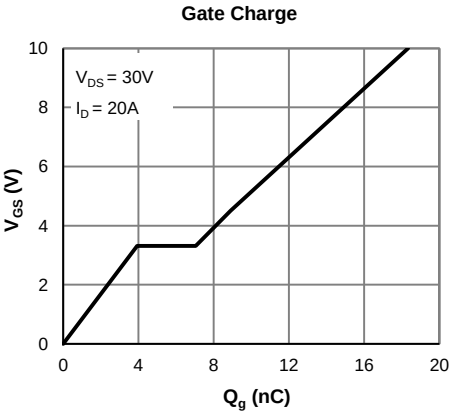
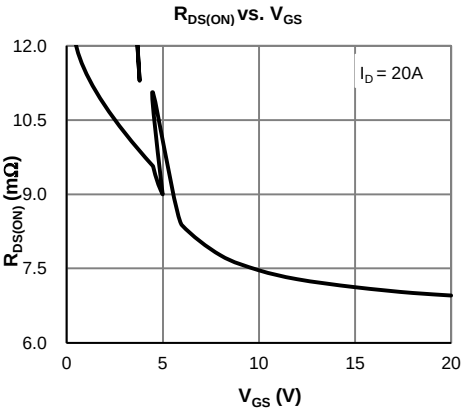


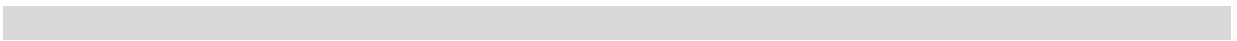
Ordering Information

| Device        | Package   | # of Pins | Marking | MSL | $T_J$ (°C) | Media        | Quantity (pcs) |
|---------------|-----------|-----------|---------|-----|------------|--------------|----------------|
| JMSL0609AK-13 | TO-252-3L | 3         | SL0609A | 1   | -55 to 150 | 13-inch Reel | 2500           |

Absolute Maximum Ratings (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)

| Parameter                           | Symbol         | Value | Unit |
|-------------------------------------|----------------|-------|------|
|                                     | $V_{DS}$       |       | V    |
|                                     | $V_{GS}$       |       | V    |
|                                     |                |       |      |
| Pulsed Drain Current <sup>(2)</sup> | $I_{DM}$       |       | A    |
|                                     | $E_{AS}$       |       | mJ   |
|                                     |                |       |      |
|                                     | $T_J, T_{STG}$ |       | °C   |







## Typical Electrical & Thermal Characteristics

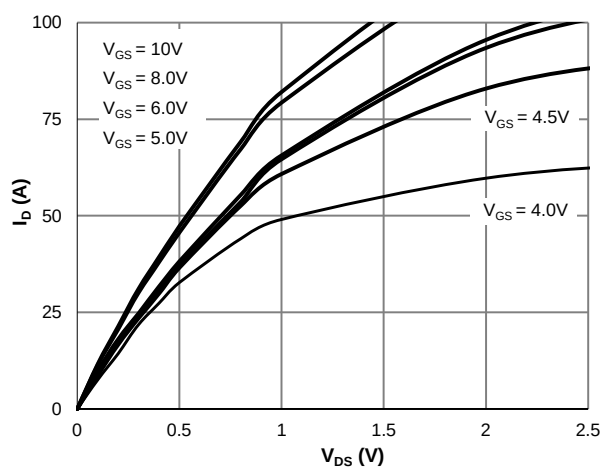


Figure 1: Saturation Characteristics

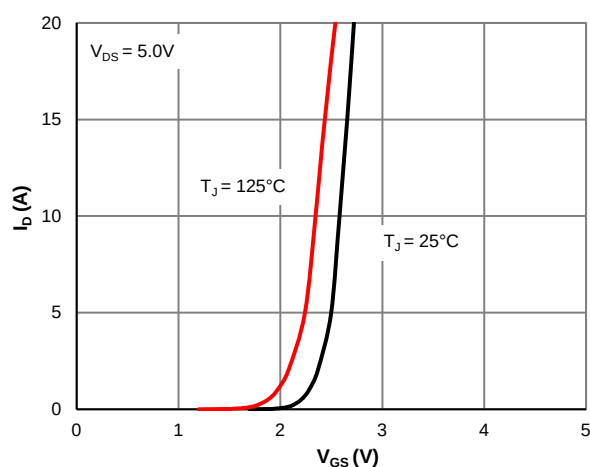


Figure 2: Transfer Characteristics

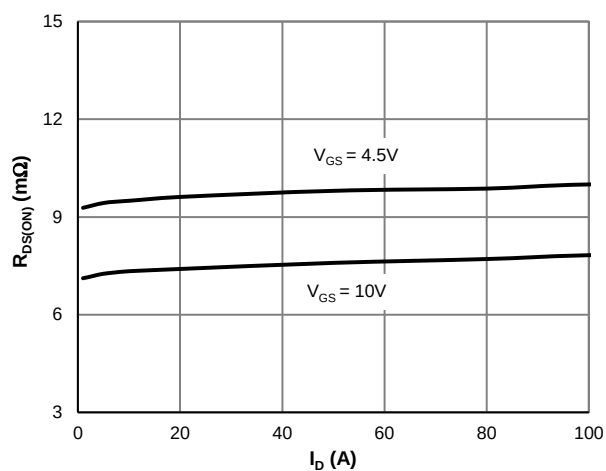


Figure 3:  $R_{DS(ON)}$  vs. Drain Current

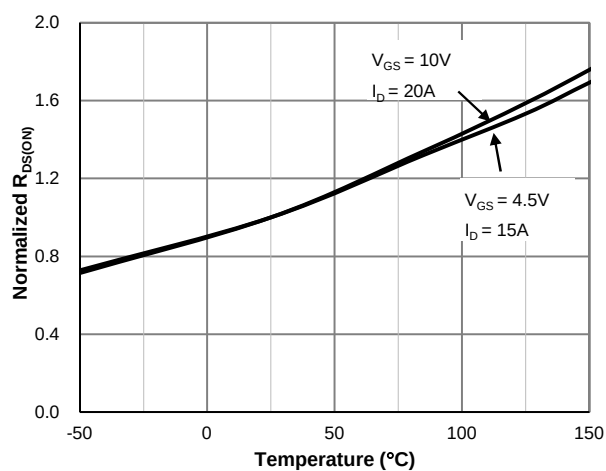


Figure 4:  $R_{DS(ON)}$  vs. Junction Temperature

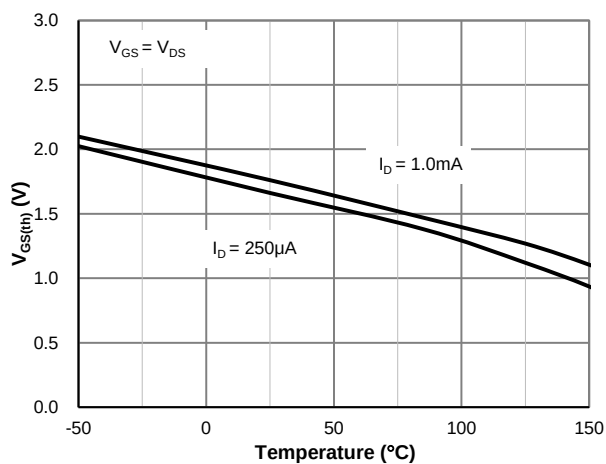


Figure 5:  $V_{GS(th)}$  vs. Junction Temperature

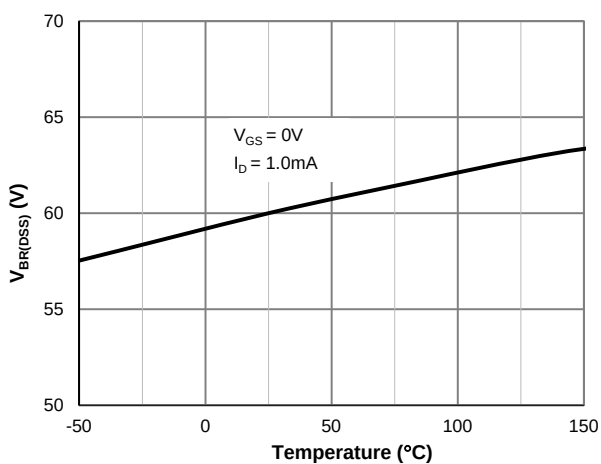
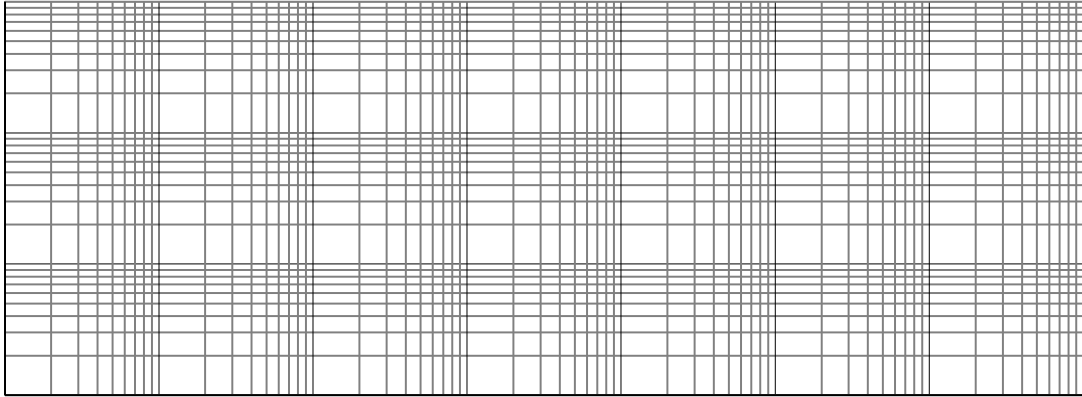


Figure 6:  $V_{BR(DSS)}$  vs. Junction Temperature





Typical Electrical & Thermal Characteristics





TO-252-3L Package Information

