





# YJL3404AL

## Electrical Characteristics ( $T_J=25$ unless otherwise noted)

| Parameter                             | Symbol       | Conditions                       | Min | Typ | Max       | Units |
|---------------------------------------|--------------|----------------------------------|-----|-----|-----------|-------|
| <b>Static Parameter</b>               |              |                                  |     |     |           |       |
| Drain-Source Breakdown Voltage        | $BV_{DSS}$   | $V_{GS}=0V, I_D$                 | 30  | -   | -         | V     |
| Zero Gate Voltage Drain Current       | $I_{DSS}$    | $V_{DS}=30V, V_{GS}=0V$          | -   | -   | 1         |       |
|                                       |              | $V_{DS}=30V, V_{GS}=0V, T_J=150$ | -   | -   | 100       |       |
| Gate-Body Leakage Current             | $I_{GSS}$    | $V_{GS}= \pm 20V, V_{DS}=0V$     | -   | -   | $\pm 100$ | nA    |
| Gate Threshold Voltage                | $V_{GS(th)}$ | $V_{DS}= V_{GS}, I_D$            | 1.0 | 1.4 | 2.2       | V     |
| Static Drain-Source On-Resistance     | $R_{DS(on)}$ | $V_{GS}=10V, I_D=6A$             | -   | 18  | 24        |       |
|                                       |              | $V_{GS}=4.5V, I_D=5A$            | -   | 26  | 34        |       |
| Diode Forward Voltage                 | $V_{SD}$     | $I_S=6A, V_{GS}=0V$              | -   | 0.9 | 1.2       | V     |
| Gate resistance                       | $R_G$        | $f=1MHz, \text{Open drain}$      | -   | 2   | -         |       |
| Maximum Body-Diode Continuous Current | $I_S$        |                                  | -   | -   | 6         | A     |
| <b>Dynamic Parameters</b>             |              |                                  |     |     |           |       |

Input Capacitance

$C_{iss}$

## Typical Electrical and Thermal Characteristics Diagrams

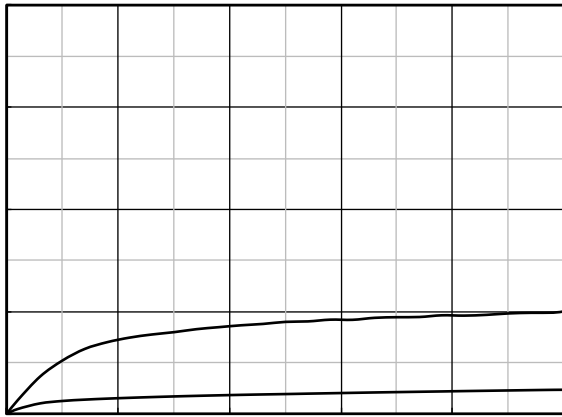


Figure 1. Output Characteristics

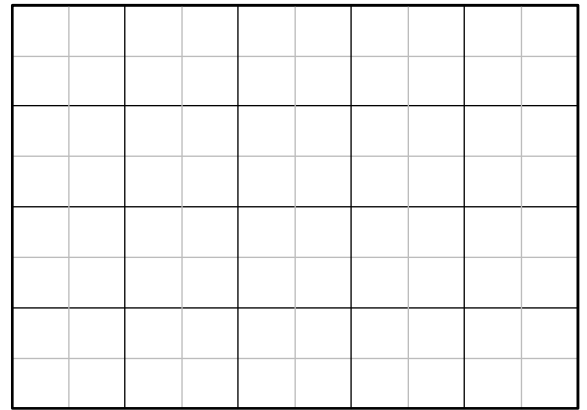


Figure 2. Transfer Characteristics

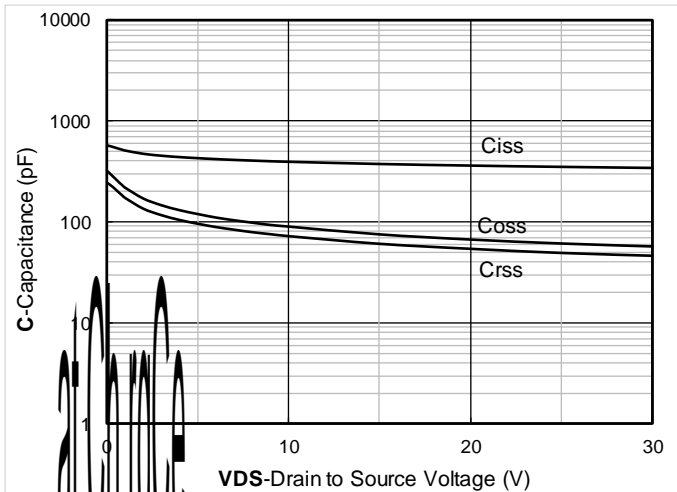


Figure 3. Capacitance Characteristics

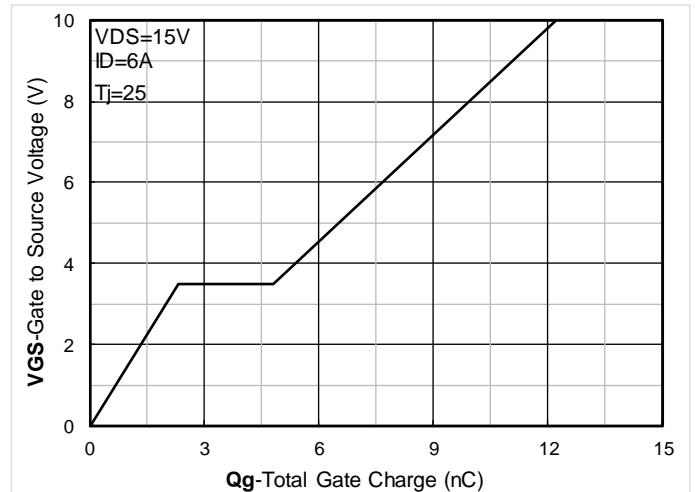


Figure 4. Gate Charge Characteristics

Figure 7.  $R_{DS(on)}$  VS Drain Current

Figure 8. Forward characteristics of reverse diode

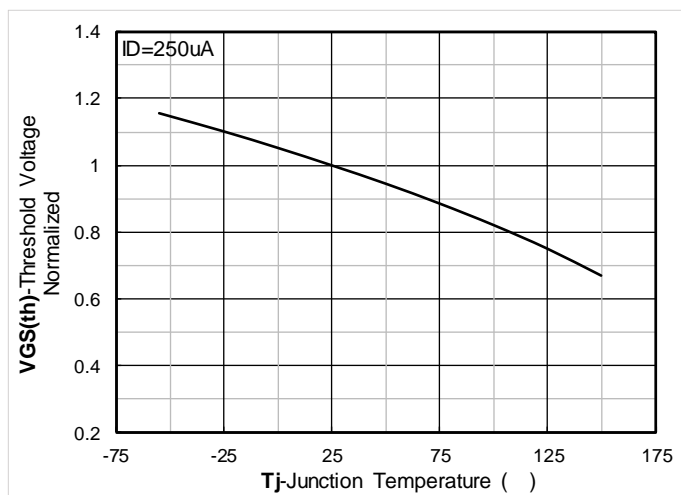


Figure 9. Normalized breakdown voltage

Figure 10. Normalized Threshold voltage

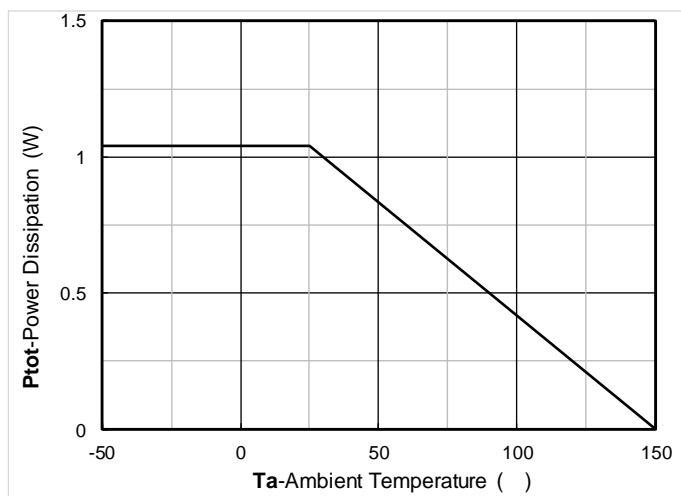
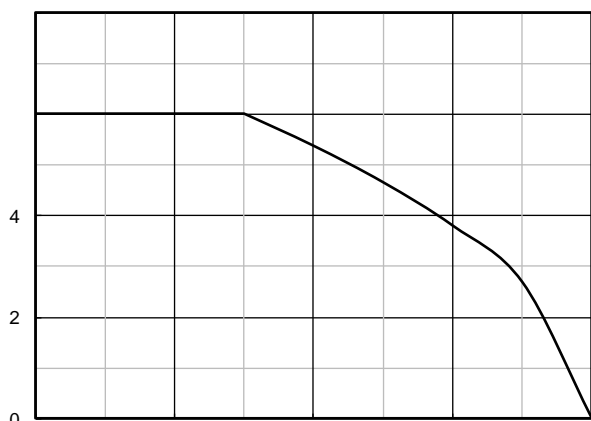


Figure 11. Current dissipation

Figure 12. Power dissipation



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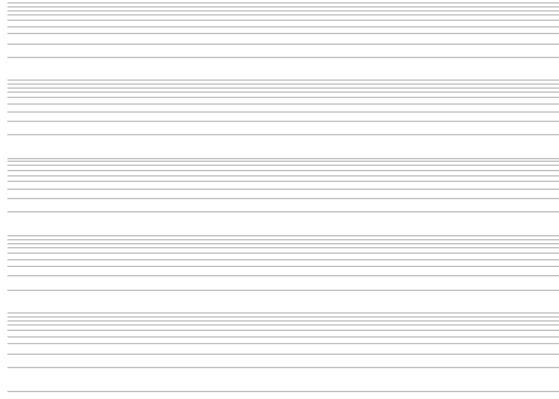


Figure 13. Maximum Transient Thermal Impedance

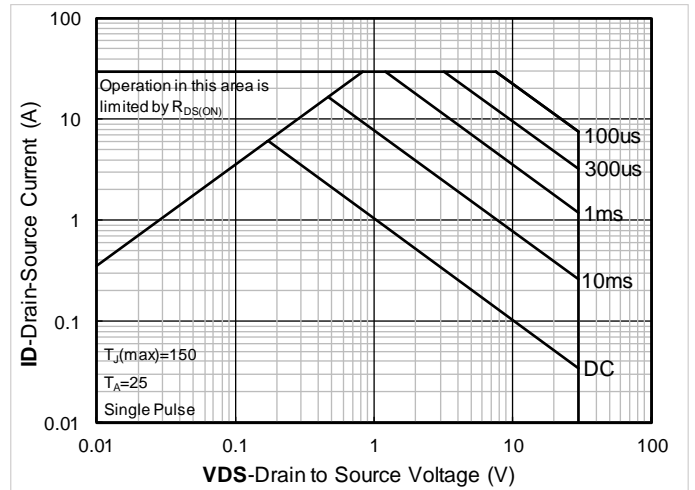
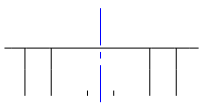
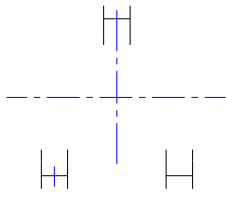


Figure 14. Safe Operation Area



SOT-23-3L Package information



UNIT mm



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## Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high reliability, t683(n)-3(g)-3dJETQq0.000008882 0 596.04 842.04 reW\*nBT/F5 9 Tf1 0 0 1 32.639 551.9