

$R_{DS(ON)}$ (at $V_{GS}=-2.5V$) 850 mohm
 $R_{DS(ON)}$ (at $V_{GS}=-1.8V$) 1200 mohm
 $R_{DS(ON)}$ (at $V_{GS}=-1.8V$) 2000 mohm
 ESD Protected Up to 2.0KV (HBM)

General Description

Trench Power LV MOSFET technology
 High Density Cell Design for Low $R_{DS(ON)}$
 High Speed switching

Applications

Interfacing, Logic switch
 Load switch
 Power management

Absolute Maximum Ratings ($T_A=25$ unless otherwise noted)

| Parameter | Symbol | Maximum | Unit |
|--|----------------|-----------------------|------|
| Drain-source Voltage | V_{DS} | -20 | V |
| Gate-source Voltage | V_{GS} | 12 | V |
| Drain Current | I_D | $T_A=25$ Steady State | -0.5 |
| | | $T_A=70$ Steady State | -0.4 |
| Pulsed Drain Current ^A | I_{DM} | -2.6 | A |
| Total Power Dissipation @ $T_A=25$ Steady State | P_D | 0.15 | W |
| Thermal Resistance Junction-to-Ambient @ Steady State ^B | R_{JA} | 833 | W |
| Junction and Storage Temperature Range | T_J, T_{STG} | -55 +150 | |

| | | | | | |
|-------------|------------------------|---|---|--|--|
| YJL3139KADW | F2e 39KAe 3000e 30000e | e | " | | |
|-------------|------------------------|---|---|--|--|



Electrical Characteristics ($T_J=25$



Typical Performance Characteristics

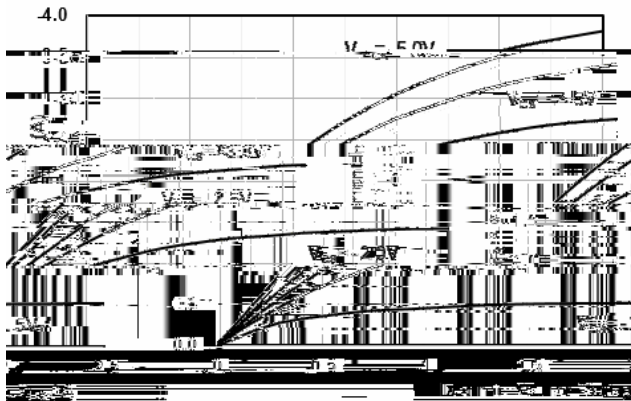


Figure1. Output Characteristics

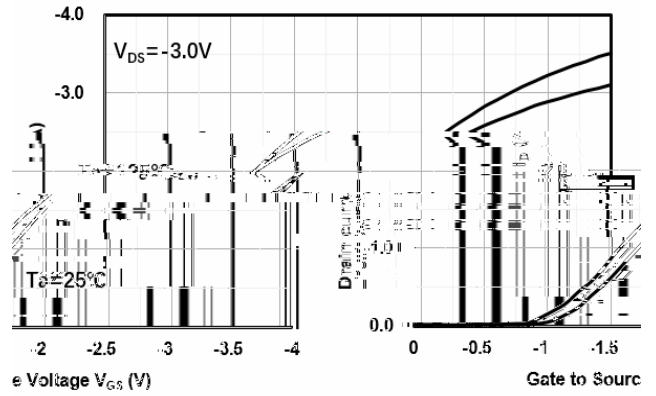


Figure2. Transfer Characteristics

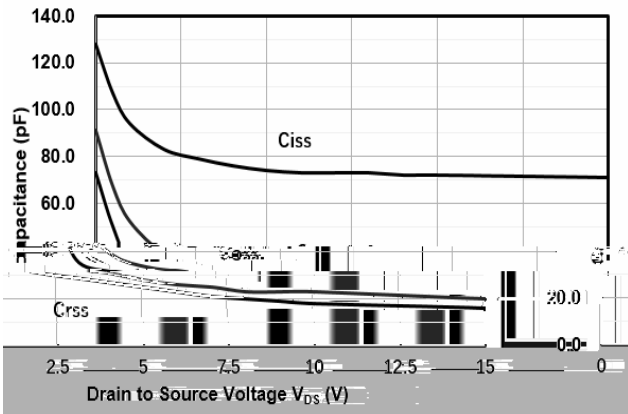


Figure3. Capacitance Characteristics

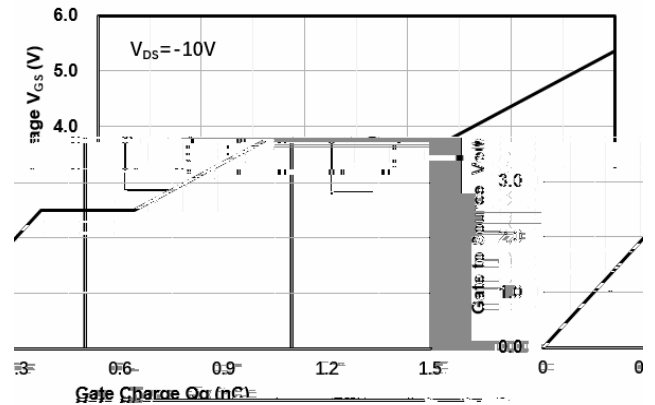


Figure4. Gate Charge

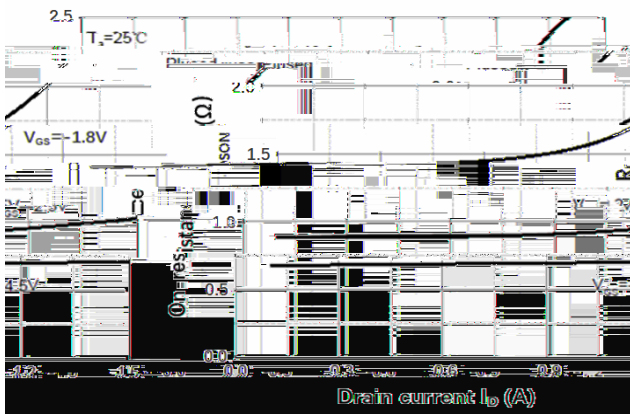


Figure5. Drain-Source on Resistance

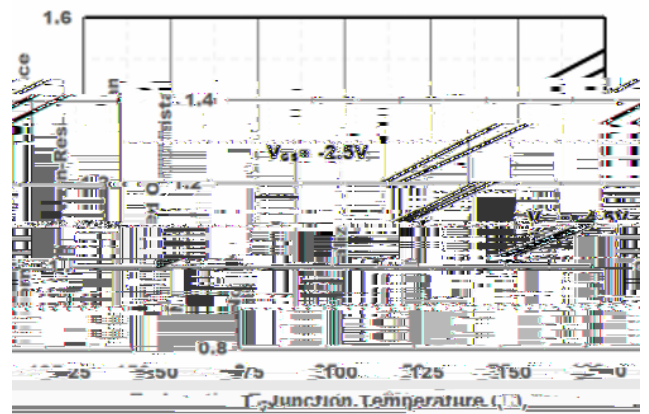


Figure6. Drain-Source on Resistance

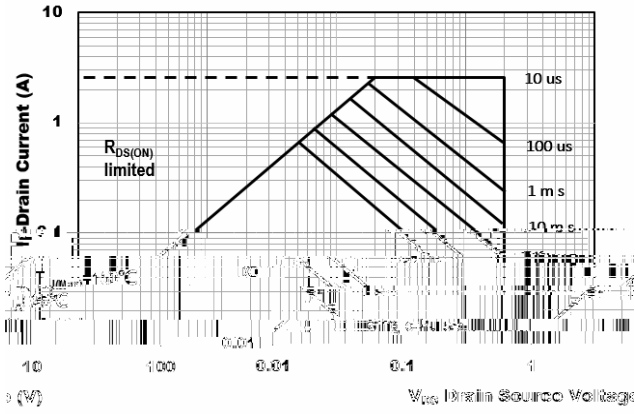


Figure7. Safe Operation Area

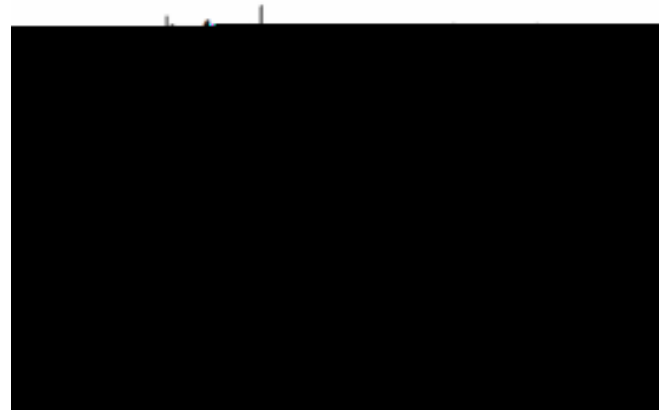


Figure8. Switching wave

< - / . \$ ' :

v 6 2 7

3 D F N D J H L Q I R U P D W L R Q

