



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	100V
$I_D$	1.8A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	140m
$R_{DS(ON)}$ ( at $V_{GS}=4.5V$ )	180m

### General Description

Split Gate Trench MOSFET technology  
Excellent package for heat dissipation  
High density cell design for low  $R_{DS(ON)}$   
Moisture Sensitivity Level 1  
Epoxy Meets UL 94 V-0 Flammability Rating  
Halogen Free

### Applications

DC-DC convertor  
Power management functions

**Absolute Maximum Ratings** ( $T_J=25$



# YJL140G10ALJ

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



# YJL140G10ALJ

## Typical Electrical and Thermal Characteristics Diagrams

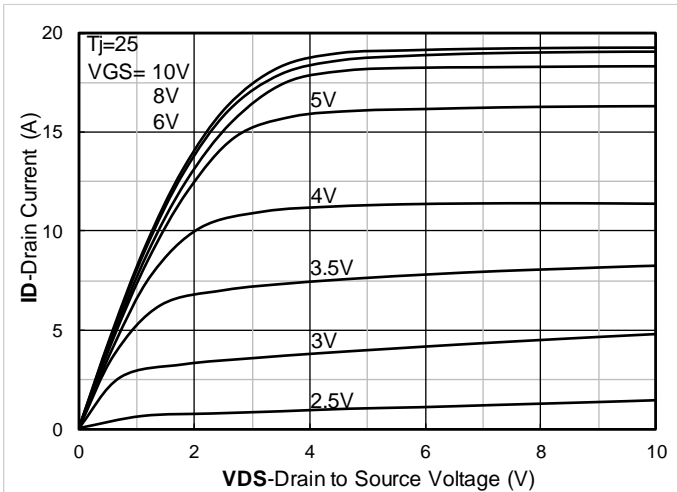


Figure 1. Output Characteristics

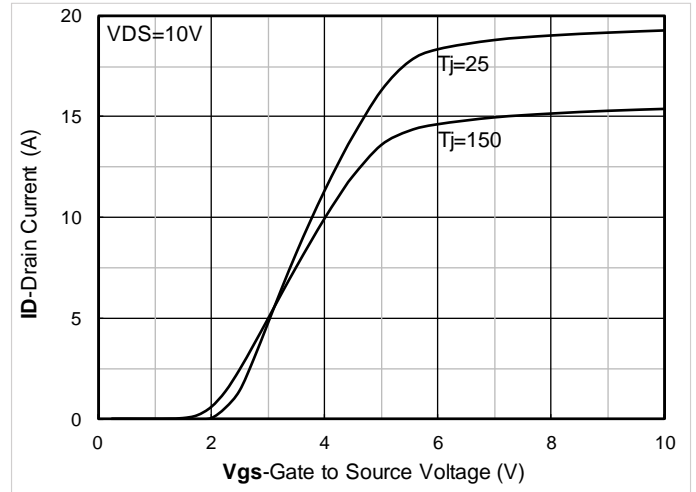


Figure 2. Transfer Characteristics

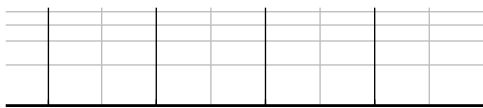


Figure 3. Capacitance Characteristics

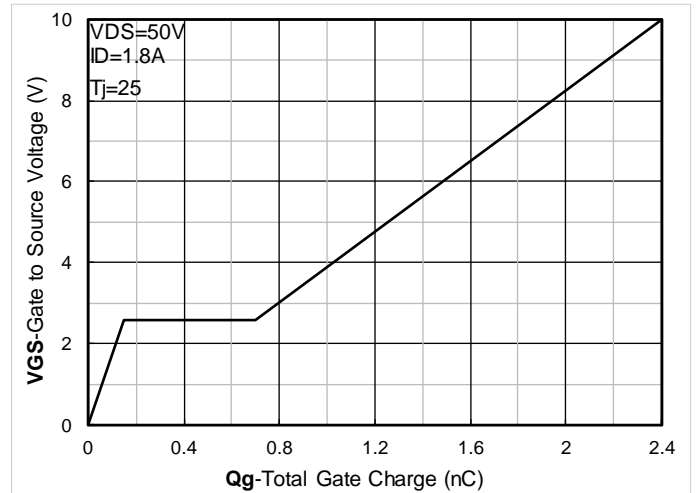


Figure 4. Gate Charge

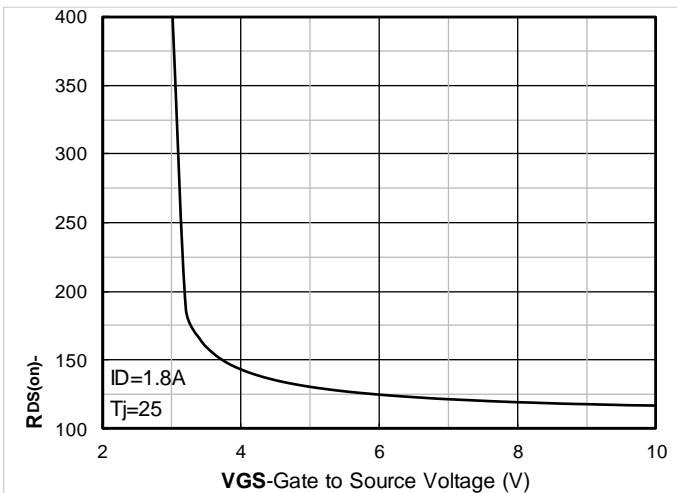


Figure 5. On-Resistance vs Gate to Source Voltage

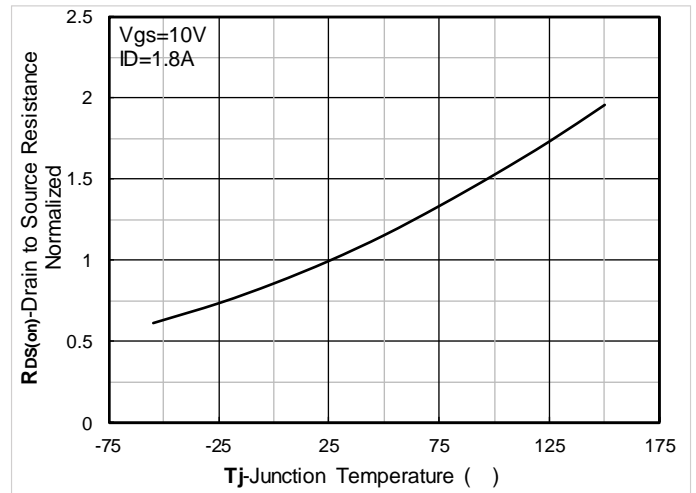


Figure 6. Normalized On-Resistance

**YJL140G10ALJ**

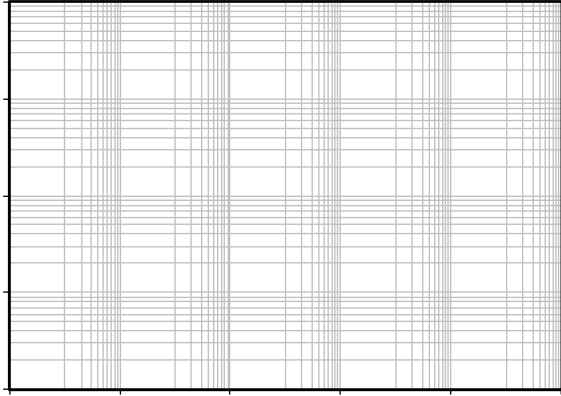


Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area

## Test Circuits & Waveforms

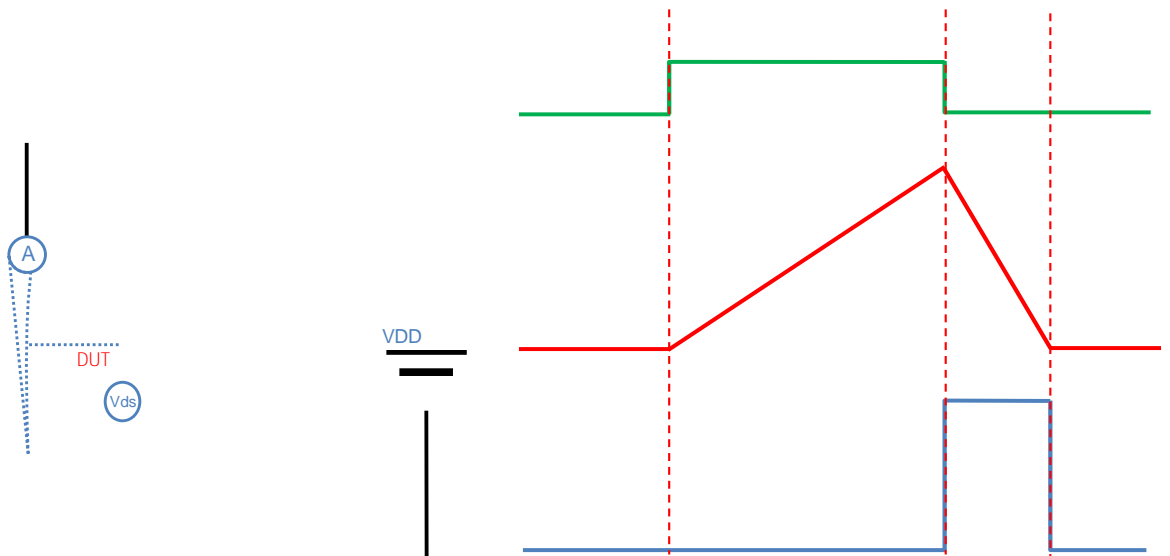


Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform

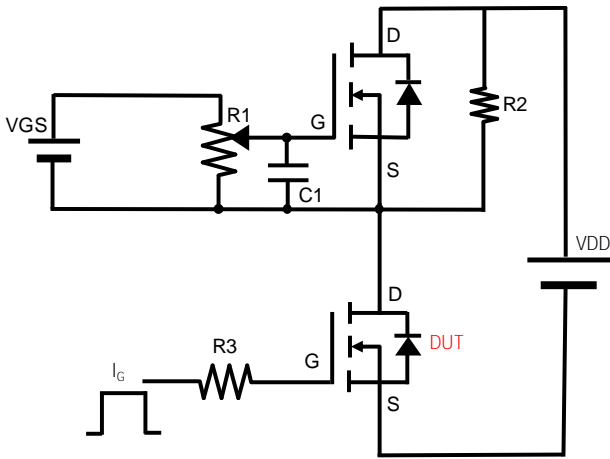


Figure B. Gate Charge Test Circuit & Waveform

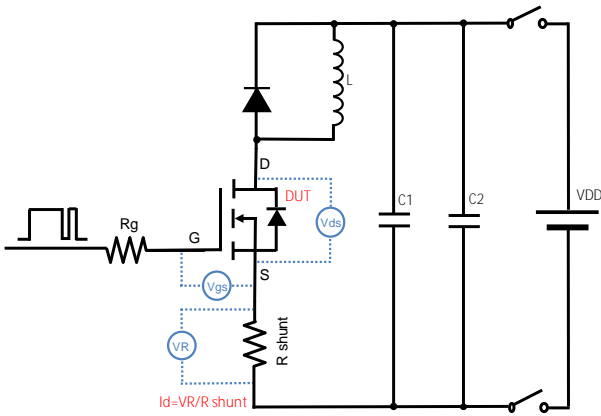


Figure C. Resistive Switching Test Circuit & Waveform

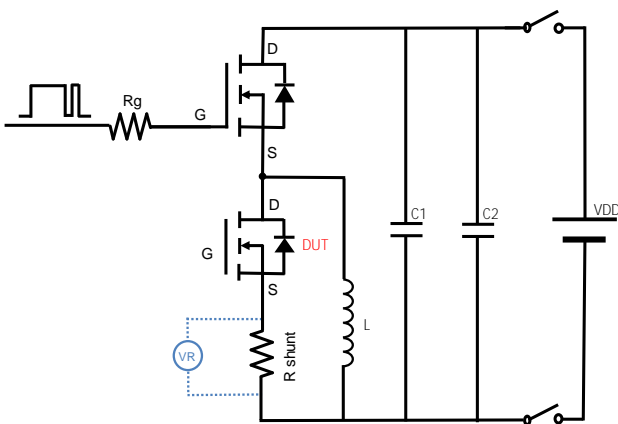


Figure D. Diode Recovery Test Circuit & Waveform



SOT-23-3L Package information

UNIT mmm



# YJL140G10ALJ

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## Disclaimer

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