



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	30V
$I_D$	0.4A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	2.5
$R_{DS(ON)}$ ( at $V_{GS}=4.5V$ )	3
Gate-Source ESD Rating Up to 2KV (HBM)	

### General Description

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

Power switching application  
Uninterruptible power supply  
DC-DC convertor

**Absolute Maximum Ratings** ( $T_J=25$  unless otherwise noted)





## Typical Electrical and Thermal Characteristics Diagrams

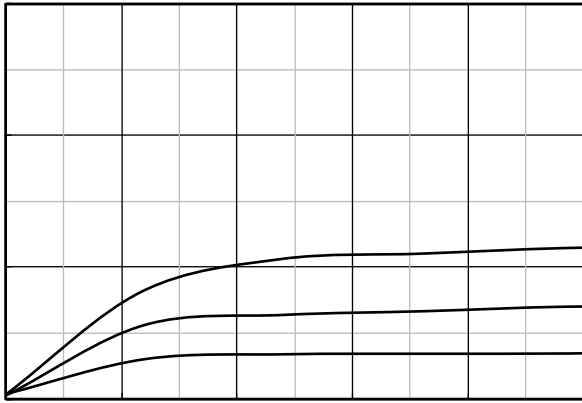


Figure 1. Output Characteristics

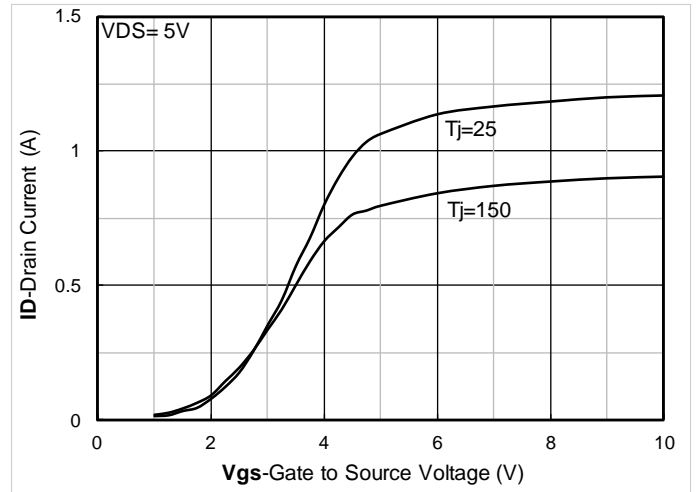


Figure 2. Transfer Characteristics

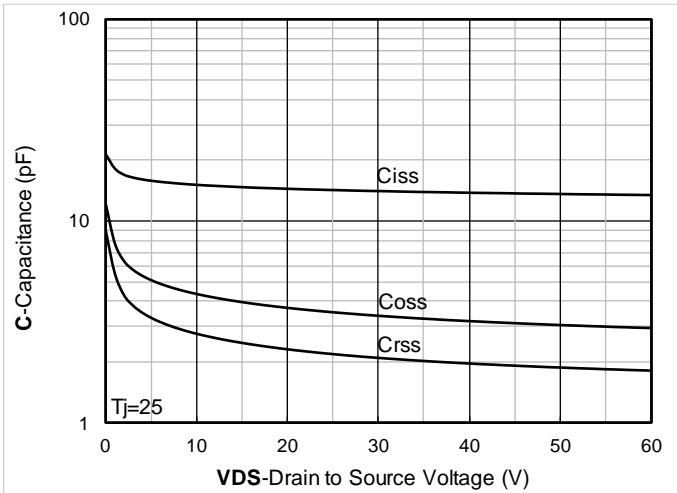


Figure 3. Capacitance Characteristics

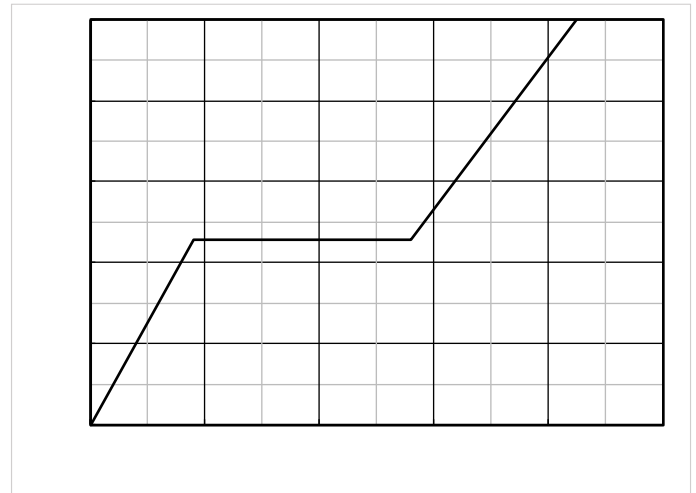


Figure 4. Gate Charge

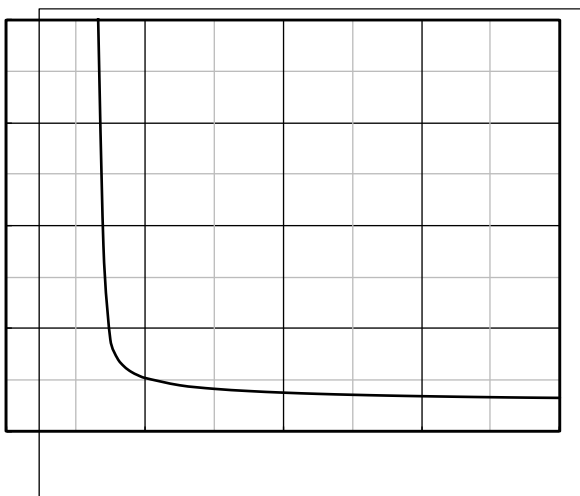


Figure 5. On-Resistance vs Gate to Source Voltage

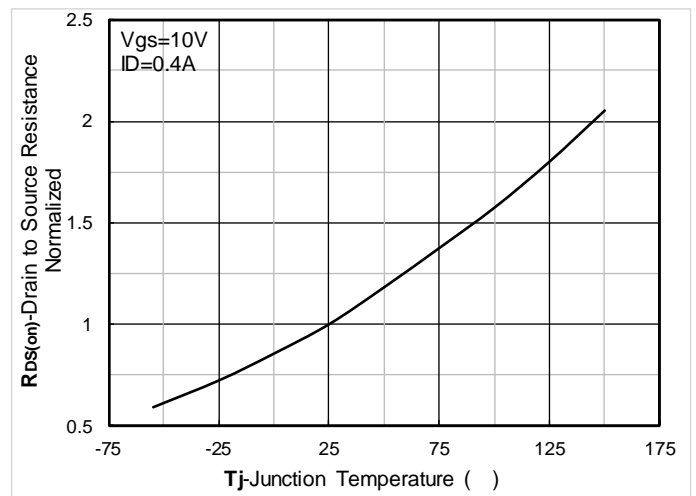


Figure 6. Normalized On-Resistance

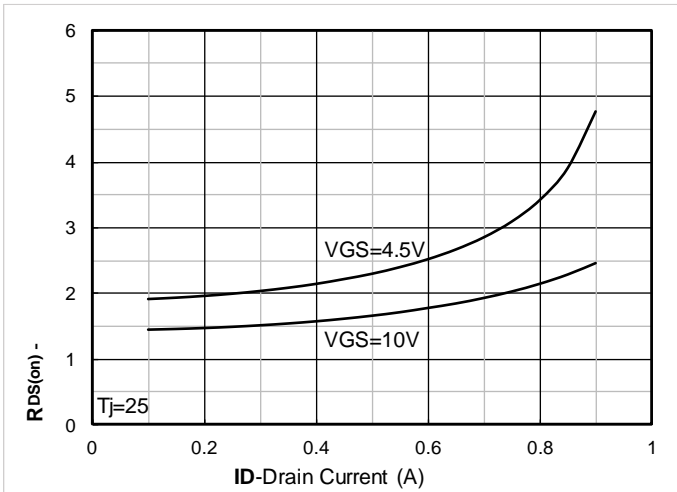


Figure 7. RDS(on) VS Drain Current

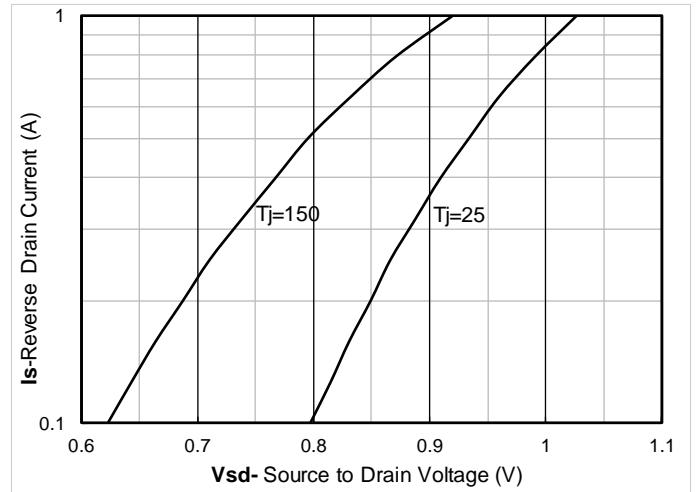


Figure 8. Forward characteristics of reverse diode

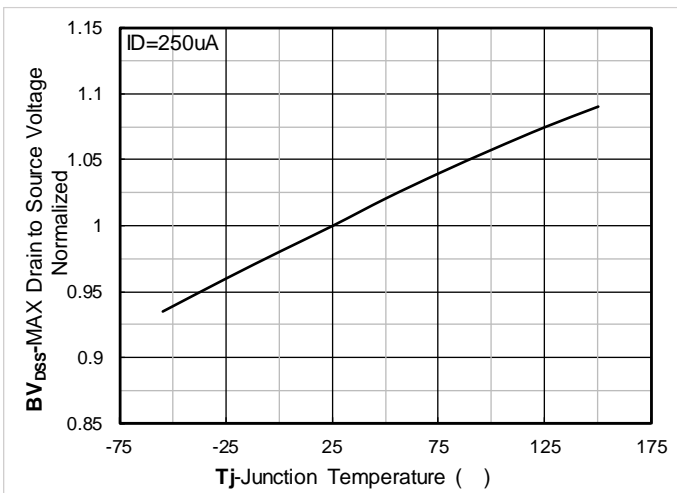


Figure 9. Normalized breakdown voltage

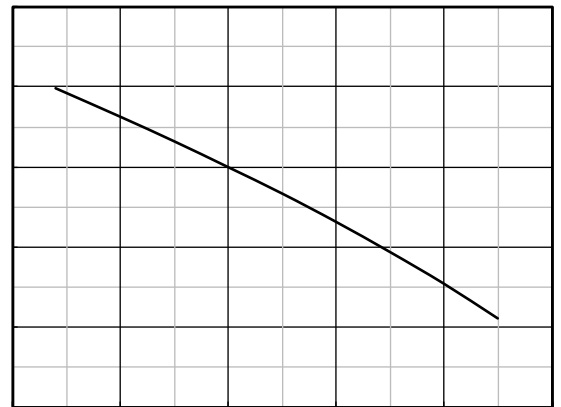


Figure 10. Normalized Threshold voltage

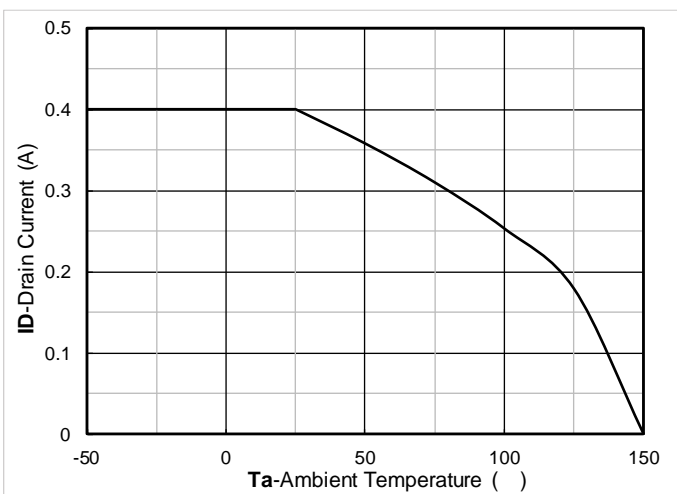


Figure 11. Current dissipation

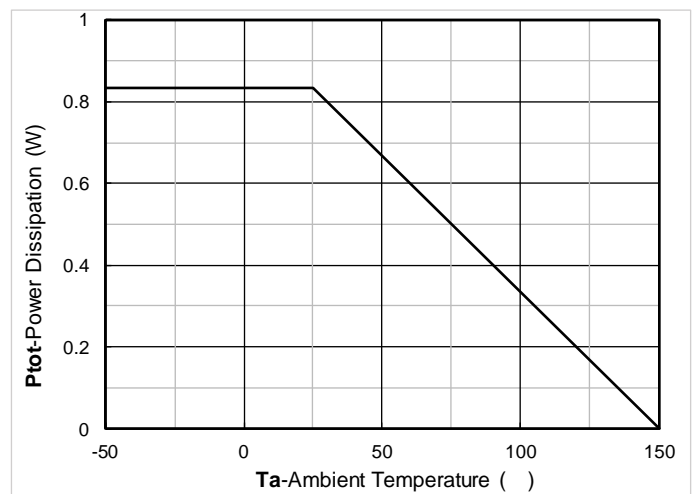


Figure 12. Power dissipation



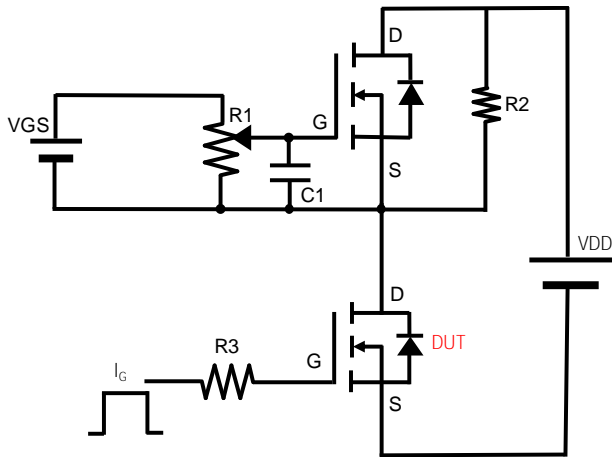


Figure B. Gate Charge Test Circuit & Waveform

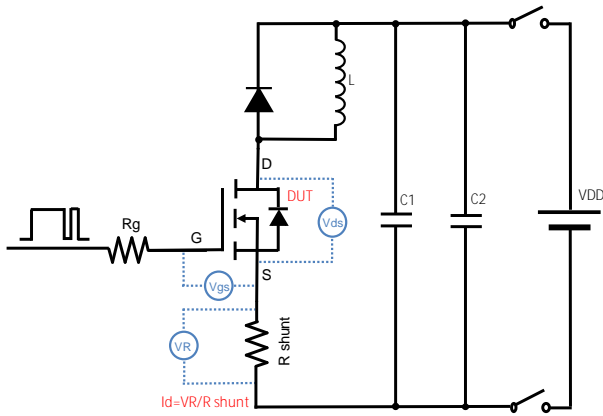


Figure C. Resistive Switching Test Circuit & Waveform

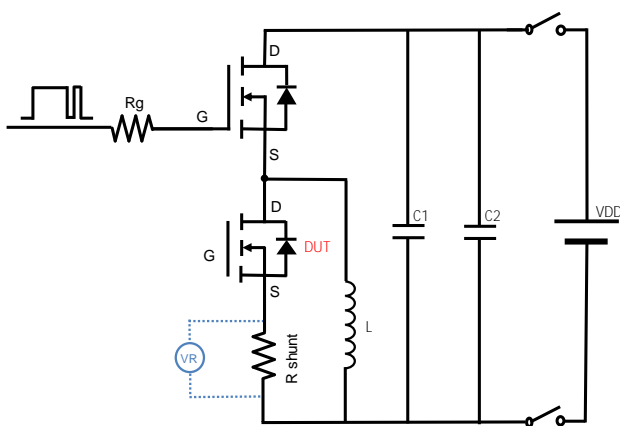
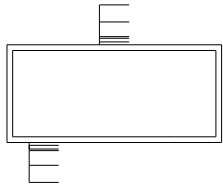


Figure D. Diode Recovery Test Circuit & Waveform



SOT-23 Package information



UNIT mm



# YJL3018KJ

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