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

1 43-8(a17e W* n BT /</ /</MCID 74/La81C g 0.307m 050256.8 Tm 8.99cÍ(J* n O g 18.000008882 0 596.04 842.)13

Electrical Characteristics (T_J=25 unless otherwise noted)

Typical Electrical and Thermal Characteristics Diagrams

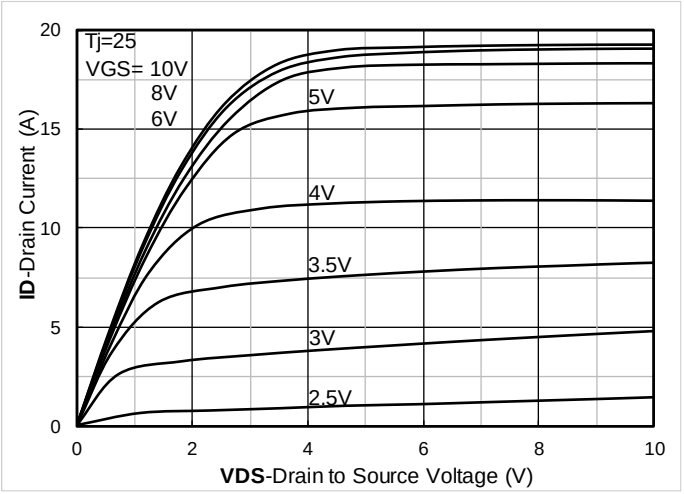

Figure 1. Output Characteristics

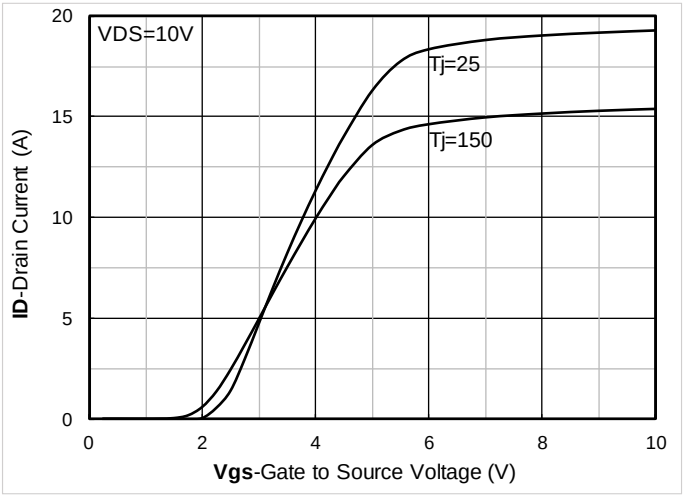

Figure 2. Transfer Characteristics

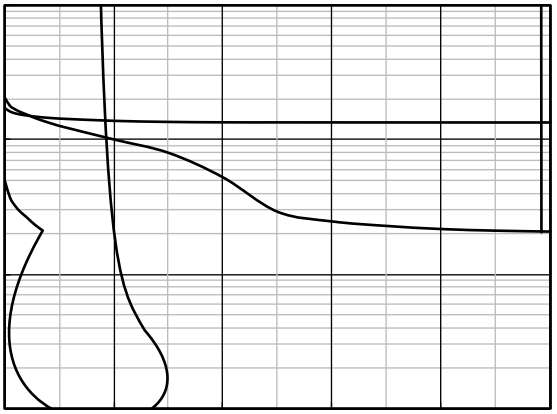

Figure 3. Capacitance Characteristics

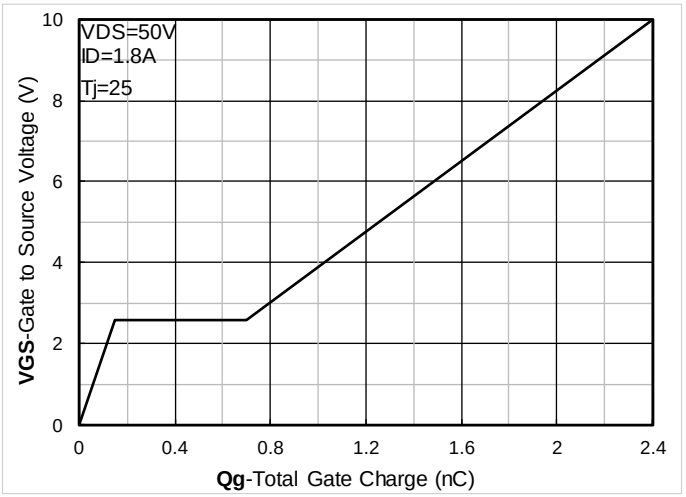

Figure 4. Gate Charge

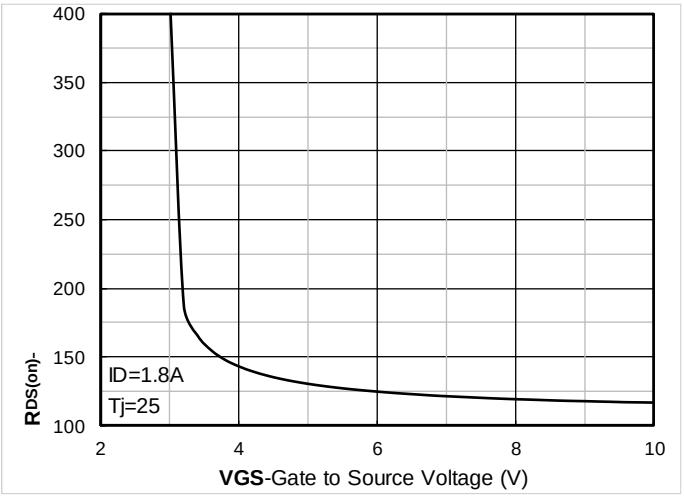

Figure 5. On-Resistance vs Gate to Source Voltage

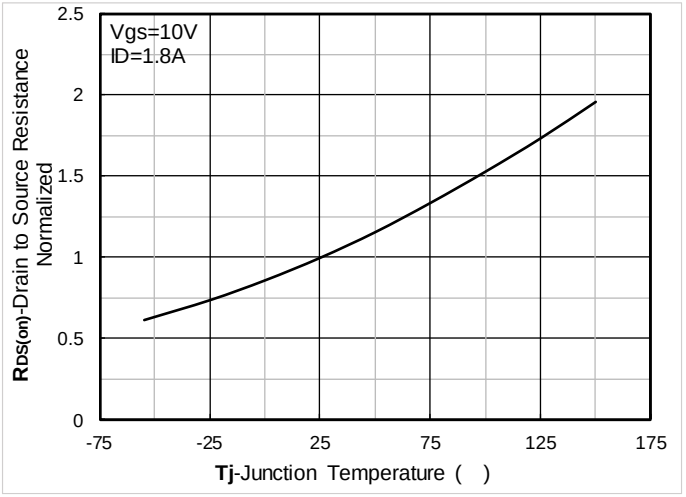

Figure 6. Normalized On-Resistance

YJL140G10ALJ

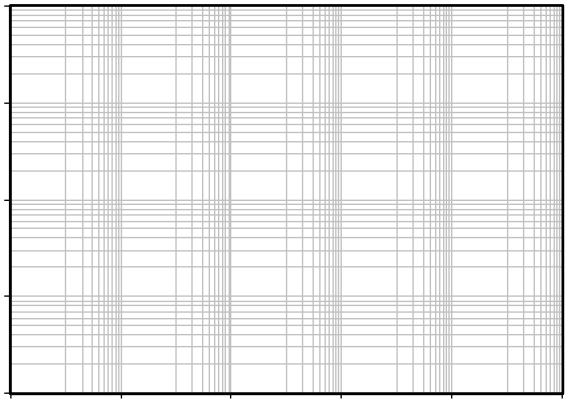

Figure 13. Maximum Transient Thermal Impedance

Figure 14. Safe Operation Area

Test Circuits & Waveforms

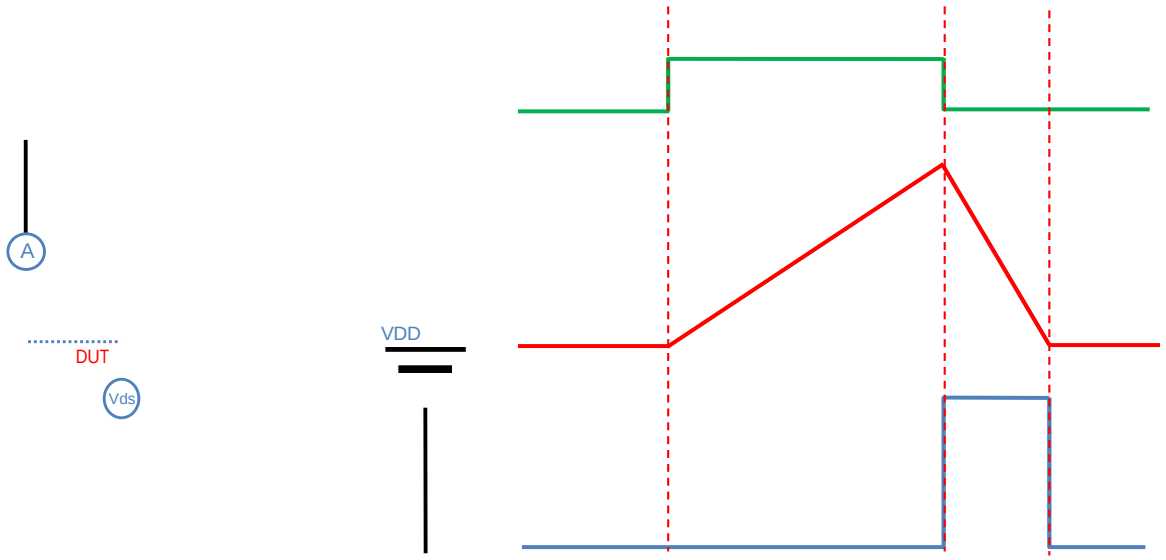

Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform

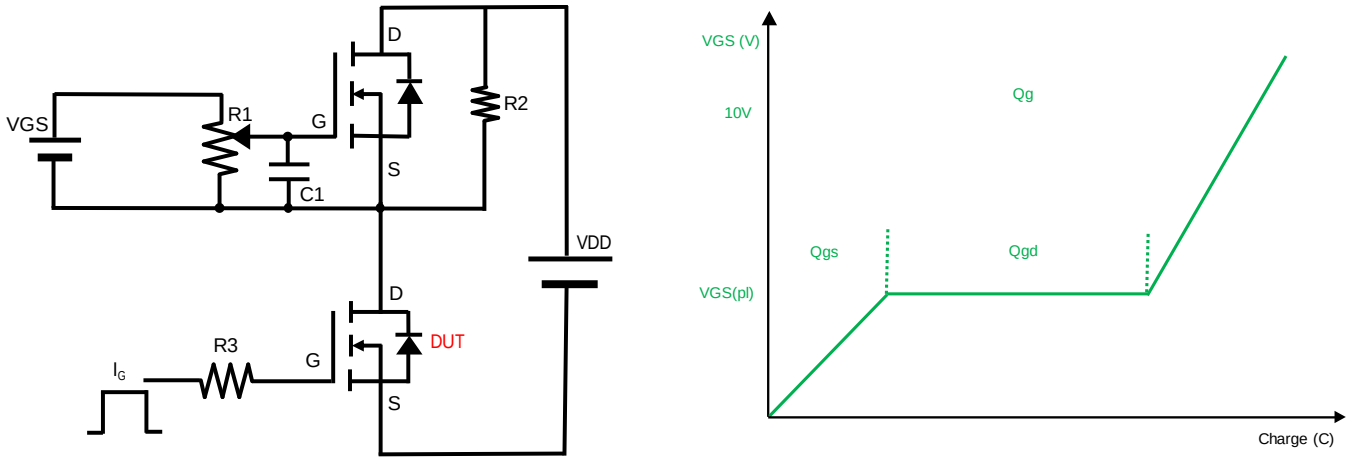

Figure B. Gate Charge Test Circuit & Waveform

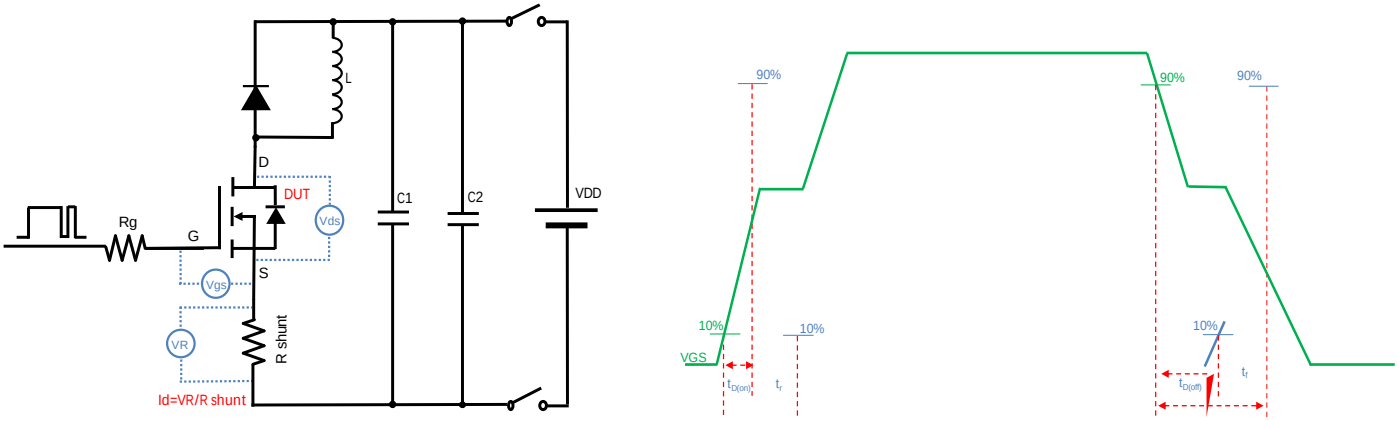

Figure C. Resistive Switching Test Circuit & Waveform

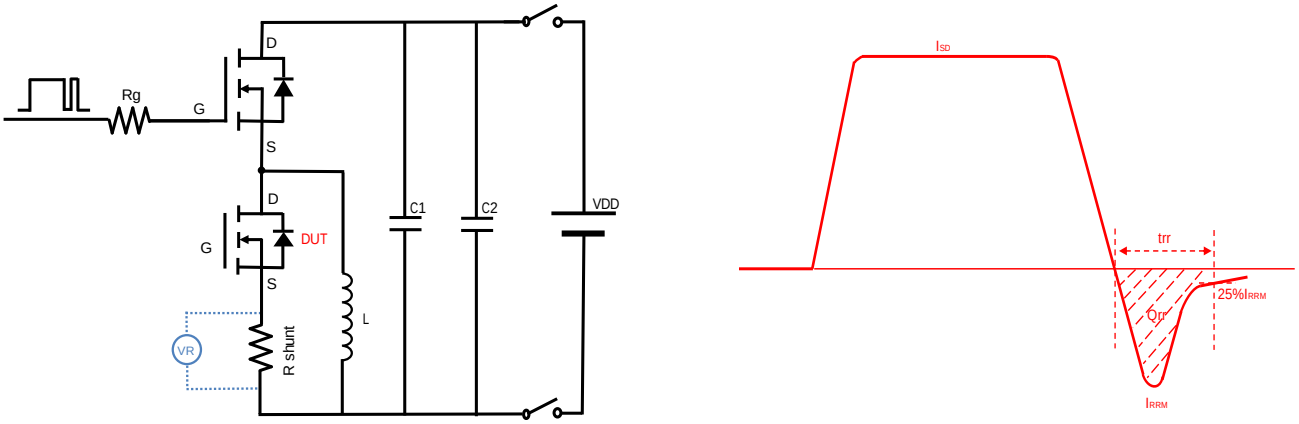

Figure D. Diode Recovery Test Circuit & Waveform

SOT-23-3L Package information

UNIT mm

Disclaimer

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