



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

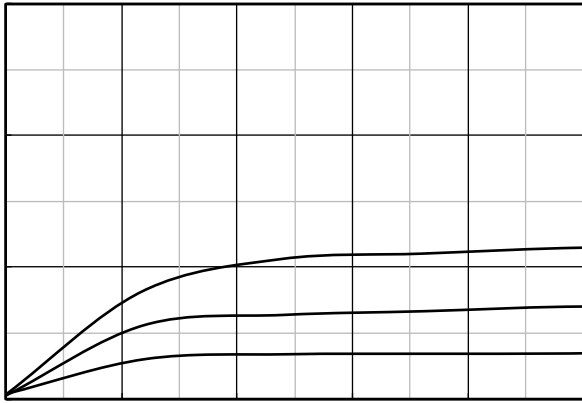


Figure 1. Output Characteristics

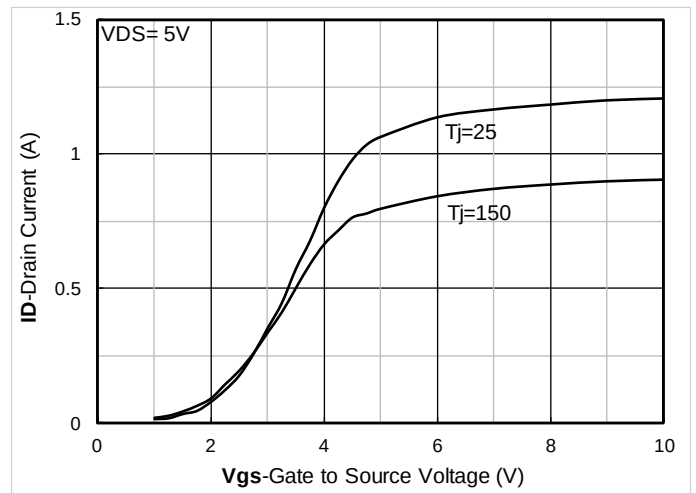


Figure 2. Transfer Characteristics

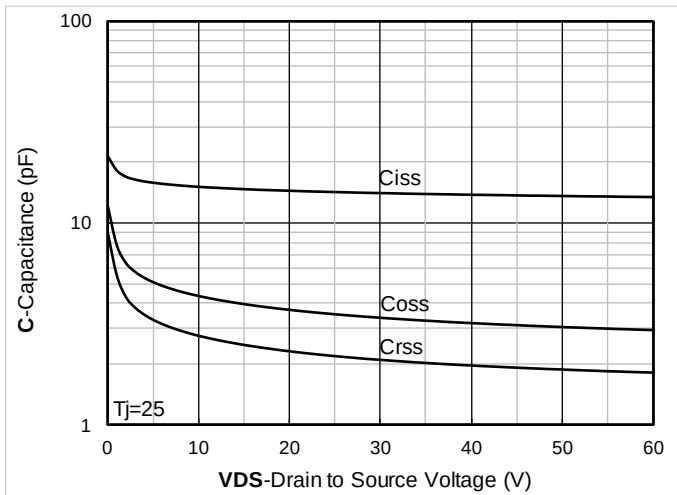


Figure 3. Capacitance Characteristics

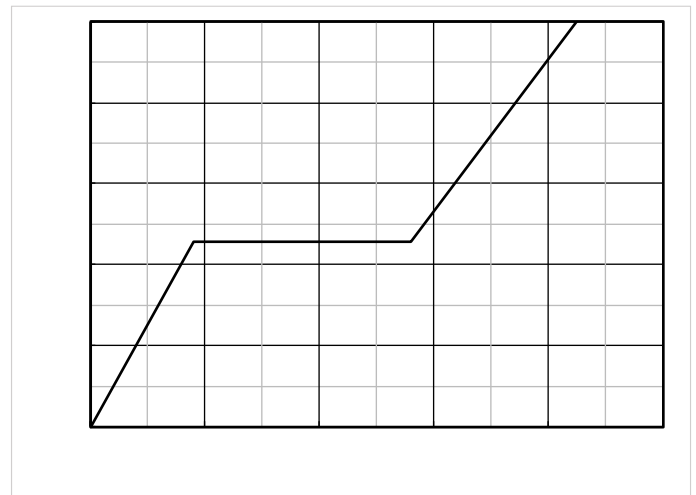


Figure 4. Gate Charge

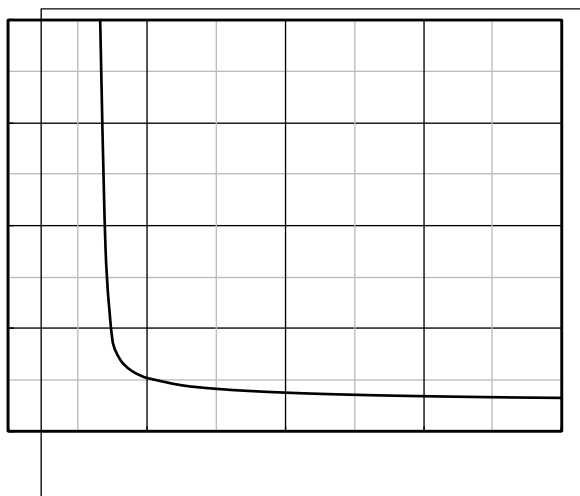


Figure 5. On-Resistance vs Gate to Source Voltage

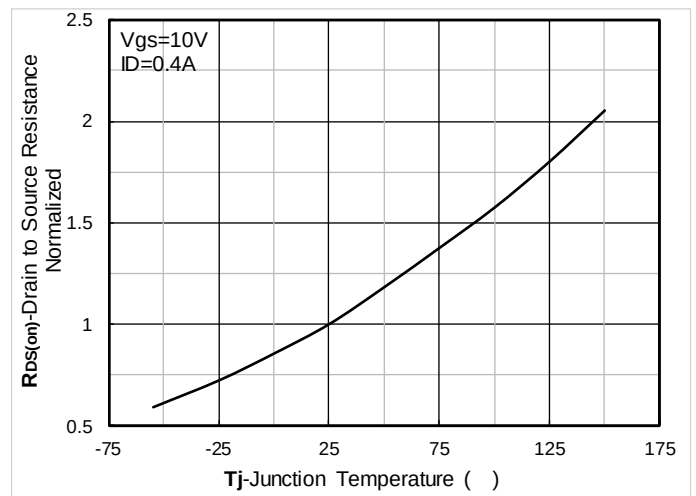


Figure 6. Normalized On-Resistance

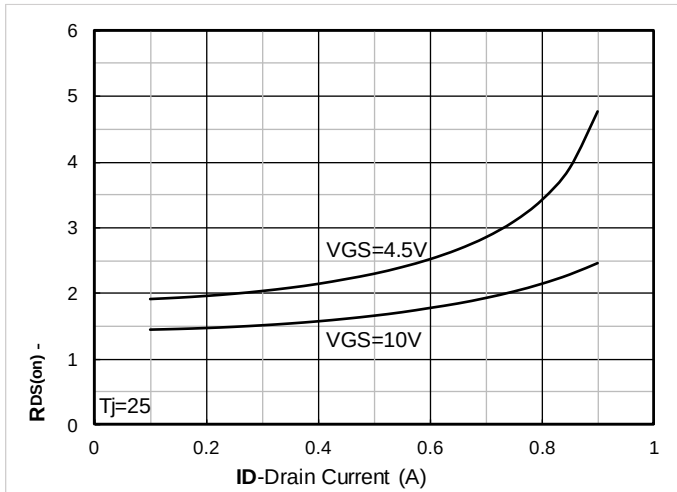


Figure 7. $R_{DS(on)}$ VS Drain Current

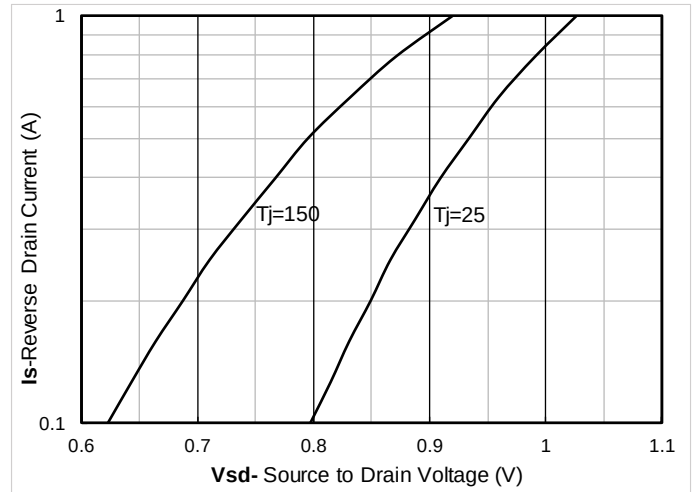


Figure 8. Forward characteristics of reverse diode

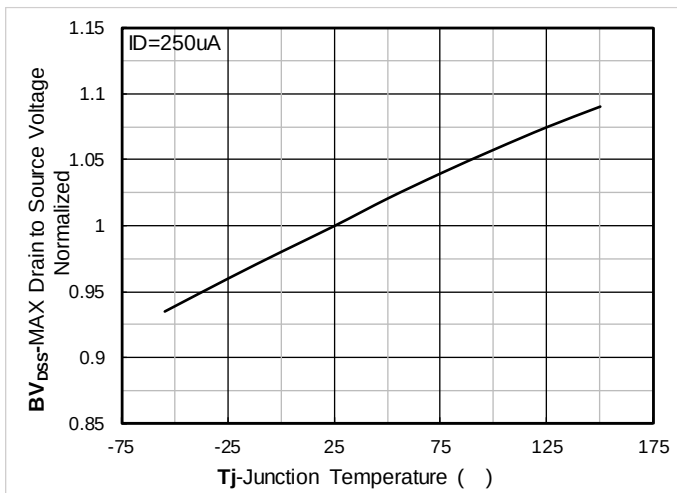


Figure 9. Normalized breakdown voltage

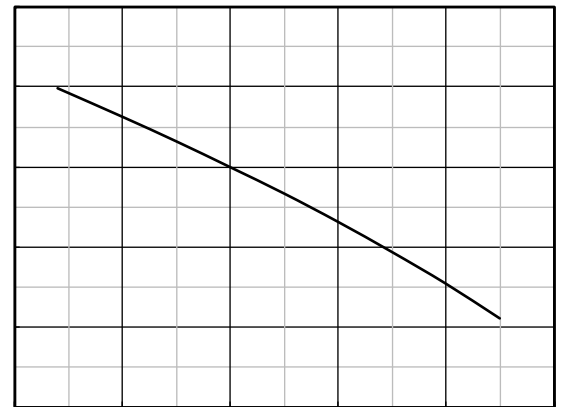


Figure 10. Normalized Threshold voltage

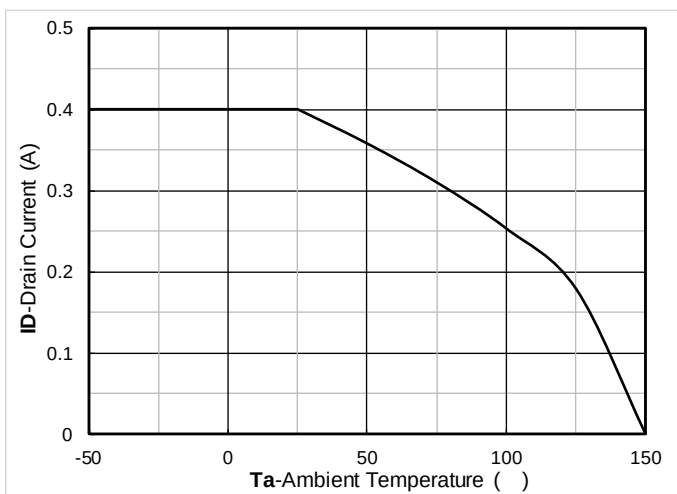


Figure 11. Current dissipation

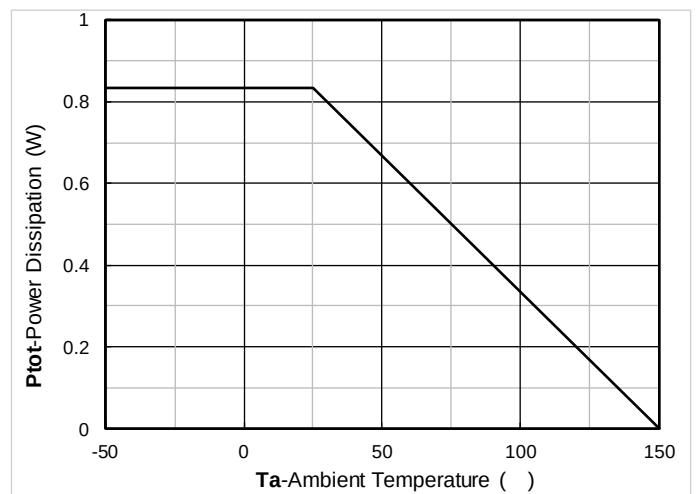


Figure 12. Power dissipation

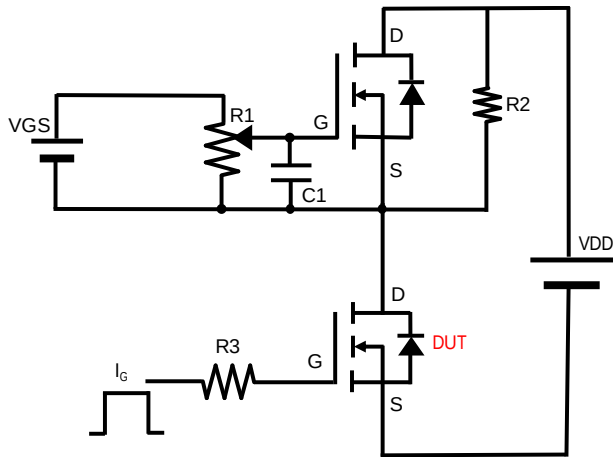


Figure B. Gate Charge Test Circuit & Waveform

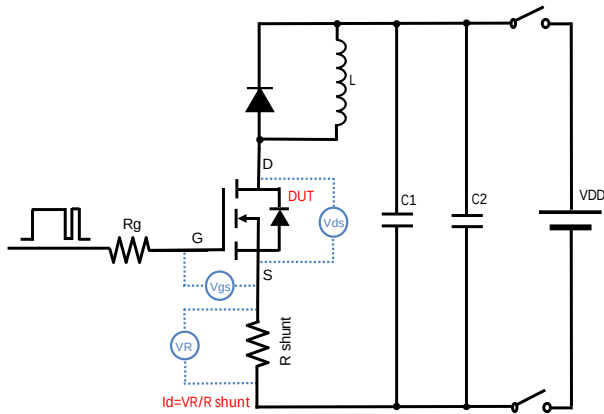
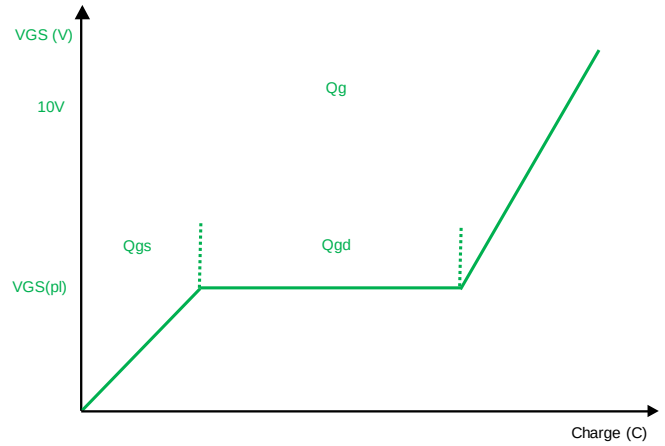


Figure C. Resistive Switching Test Circuit & Waveform

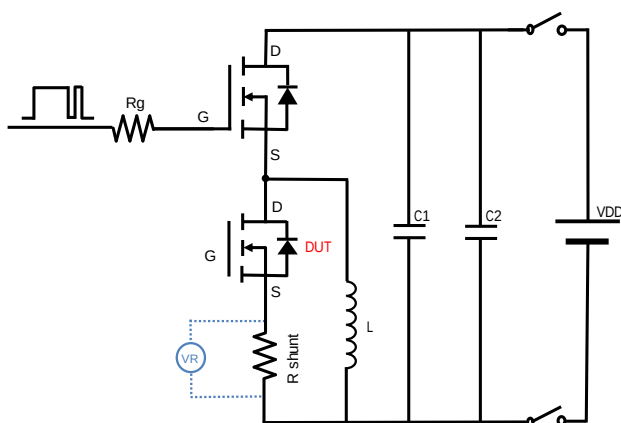
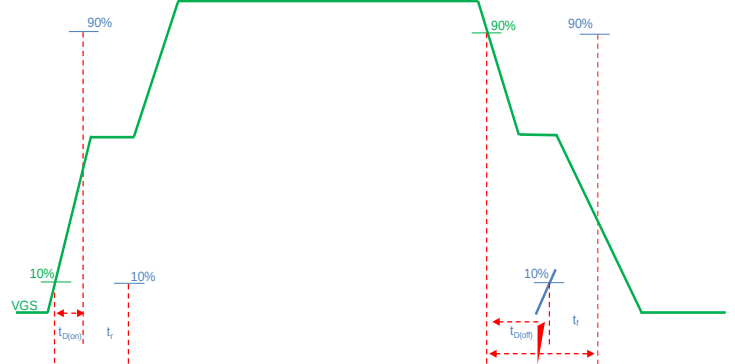
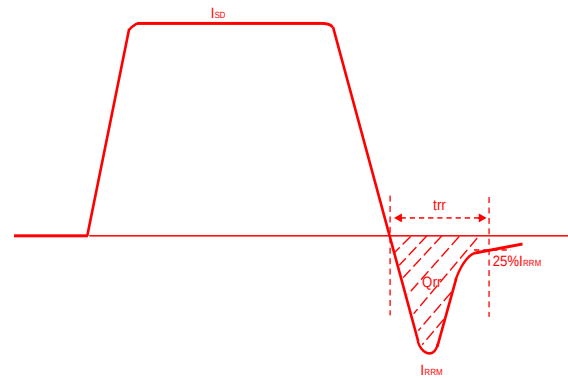
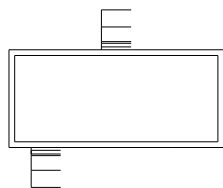


Figure D. Diode Recovery Test Circuit & Waveform





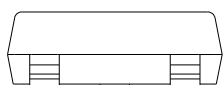
SOT-23 Package information



TOP VIEW



SIDE VIEW



UNIT mm

SUGGESTED SOLDER PAD LAYOUT



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