N-Channel Enhancement Mode Field Effect Transistor

Product Summary

● V_{DS}	50V
● I_D	300mA
● $R_{DS(ON)}$(at V_{GS}=10V)	1100mΩ
● $R_{DS(ON)}$(at V_{GS}=4.5V)	1200mΩ

General Description

- Trench Power MV MOSFET technology
- Voltage controlled small signal switch
- Low input Capacitance
- Fast Switching Speed
- Low Input / Output Leakage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Battery operated systems
- Solid-state relays
- Direct logic-level interface TTL/CMOS

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

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	50	V
Gate-source Voltage		V_{GS}	±20	V
Drain Current	T_A=25	I_D	300	mA
	T_A=100		189	

■ Electrical Characteristics (T$_J$=25 unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	U/P 0reW

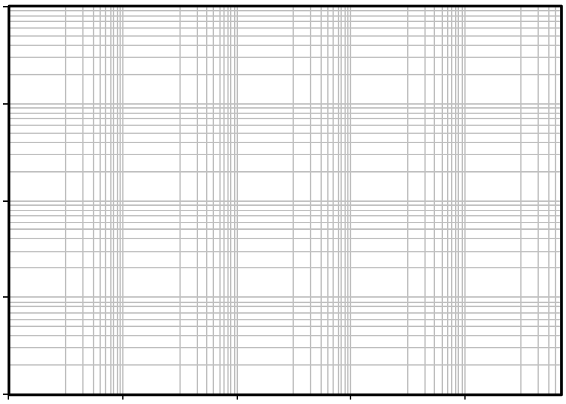

Figure 13. Maximum Transient Thermal Impedance

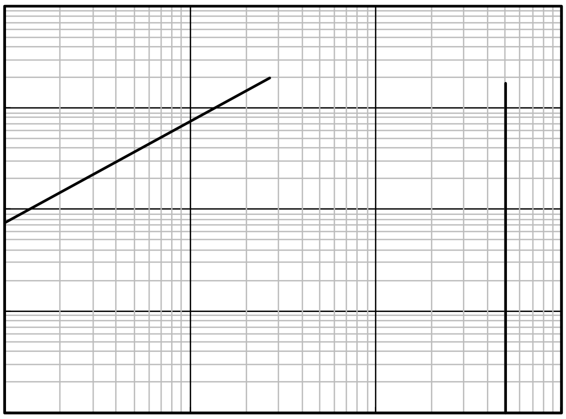

Figure 14. Safe Operation Area

■ Test Circuits & Waveforms

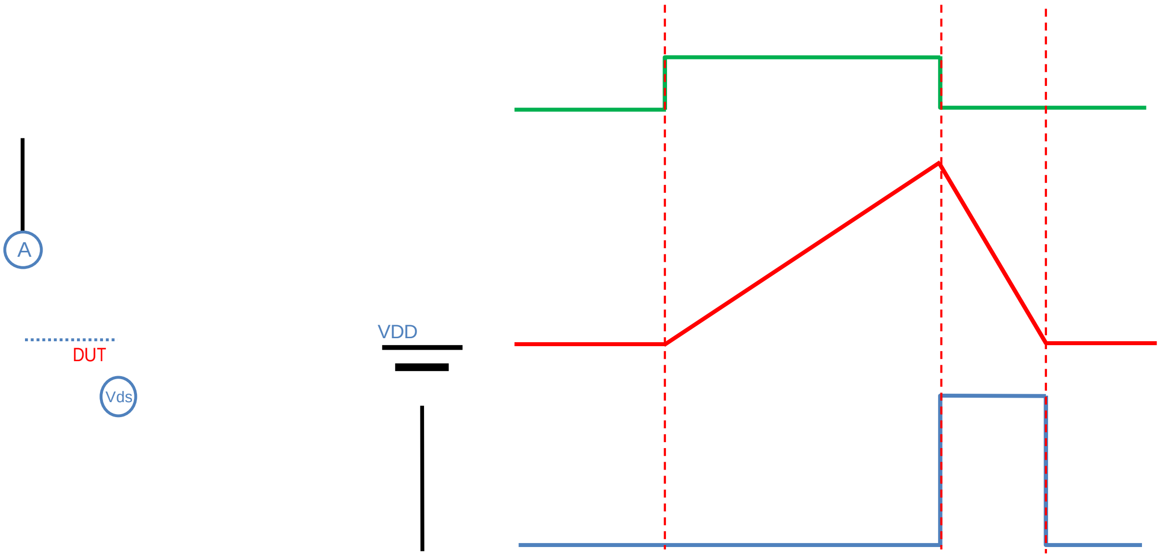

Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform

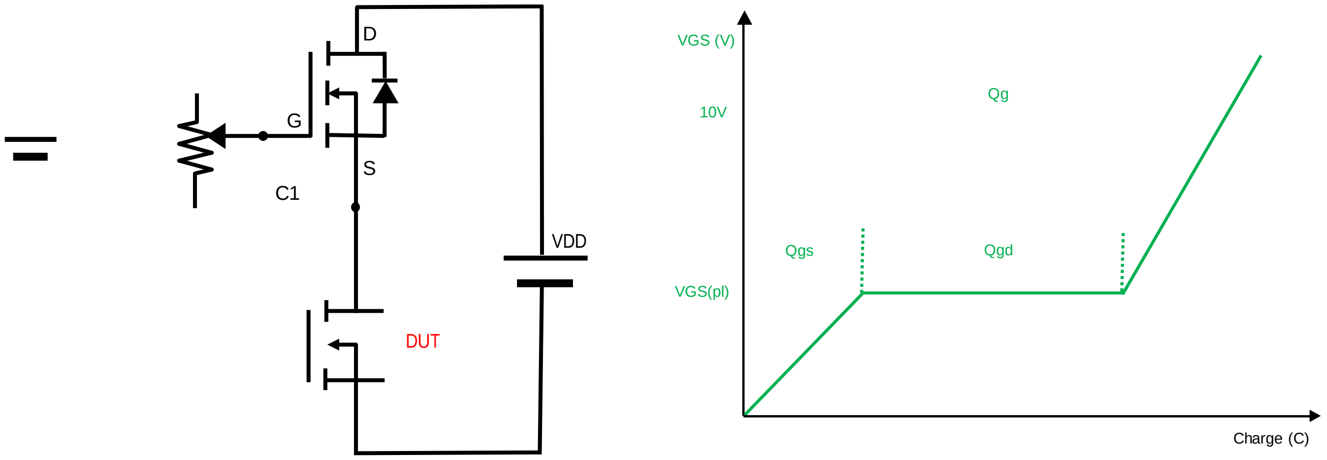

Figure B. Gate Charge Test Circuit & Waveform

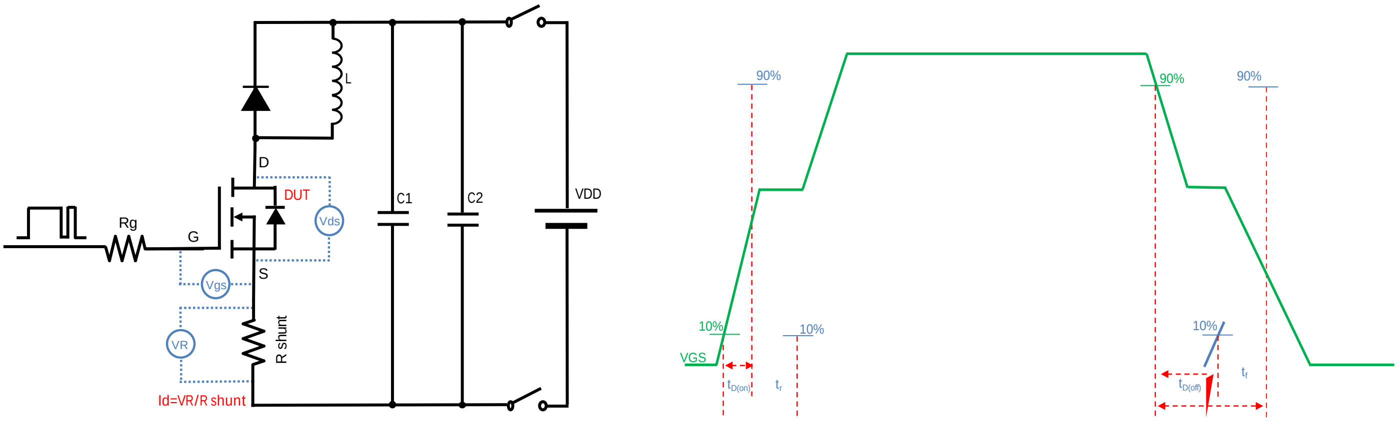

Figure C. Resistive Switching Test Circuit & Waveform

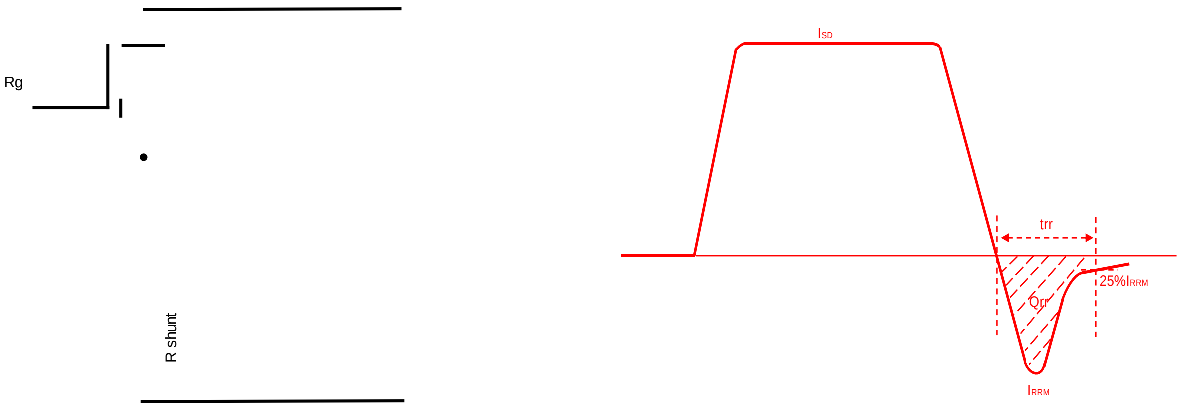

Figure D. Diode Recovery Test Circuit & Waveform

■ SOT-523

Disclaimer

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