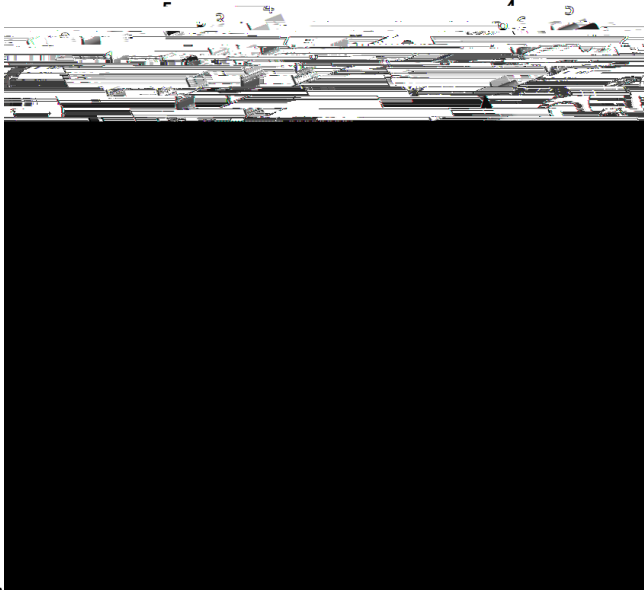




N-Channel and N-Channel Complementary MOSFET



Product Summary

- V_{DS} 60V
- I_D 4A
- $R_{DS(ON)}$ (at $V_{GS}=10V$) 75m Ω
- $R_{DS(ON)}$ (at $V_{GS}=4.5V$) 90m Ω

General Description

- Trench Power MV MOSFET technology
- High Speed switching
- Moisture Sensitivity Level 3
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free

Applications

- Power switching application
- Uninterruptible power supply
- Load switch

■ Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25$	I_D	4	A
	$T_A=100$		2.5	
Pulsed Drain Current ^A		I_{DM}	20	A
Total Power Dissipation ^B	$T_A=25$	P_D	1.6	W
	$T_A=100$		0.6	

Junction and Storage Temperature Range

T_J



YJSD04N06C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	60	-	-	V



Typical Electrical and Thermal Characteristics Diagrams

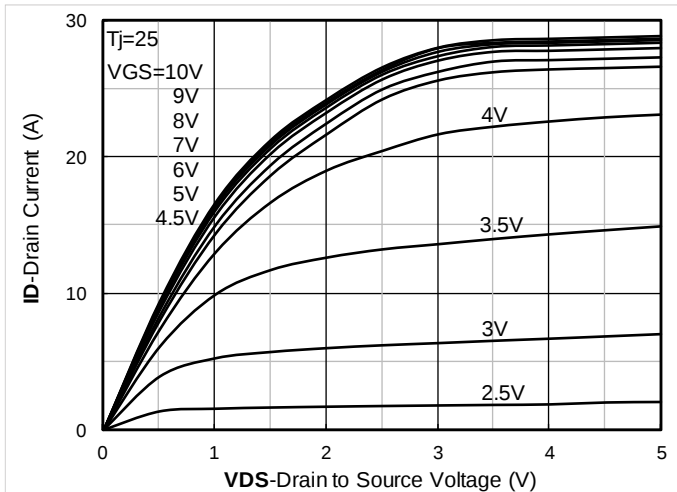


Figure 1. Output Characteristics

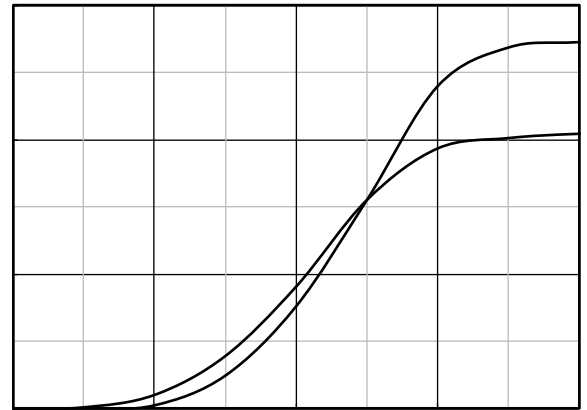


Figure 2. Transfer Characteristics

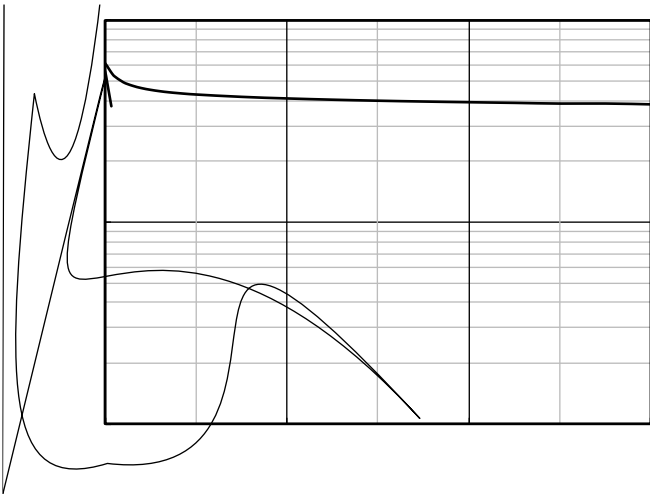


Figure 3. Capacitance Characteristics

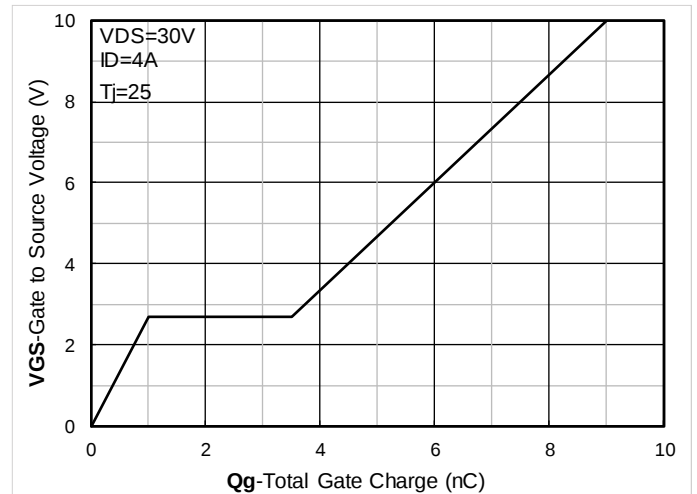


Figure 4. Gate Charge

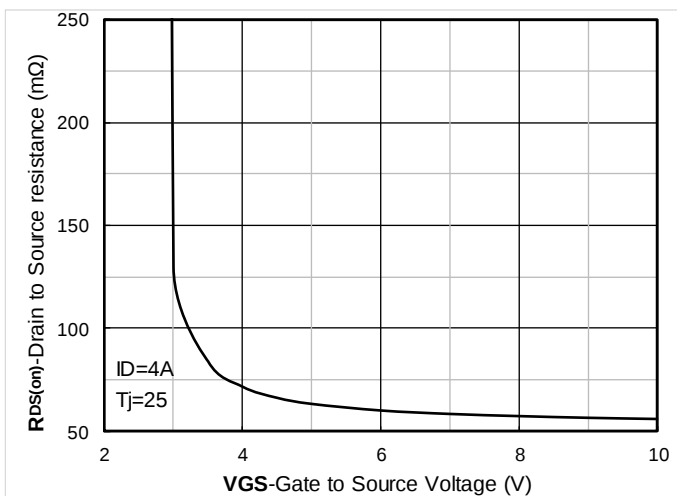


Figure 5. On-Resistance vs Gate to Source Voltage

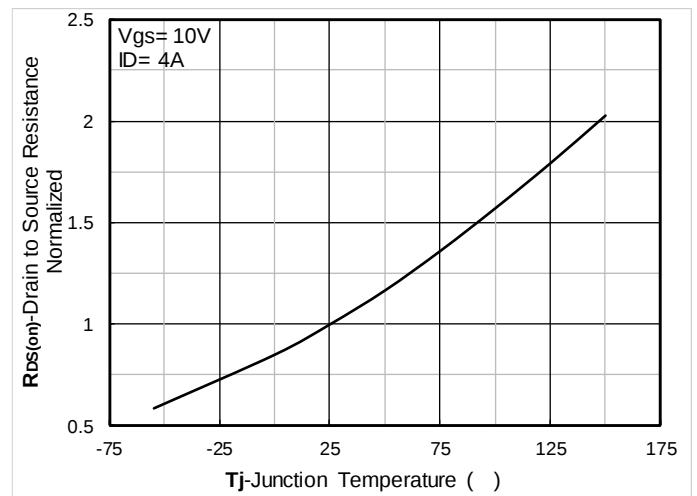


Figure 6. Normalized On-Resistance

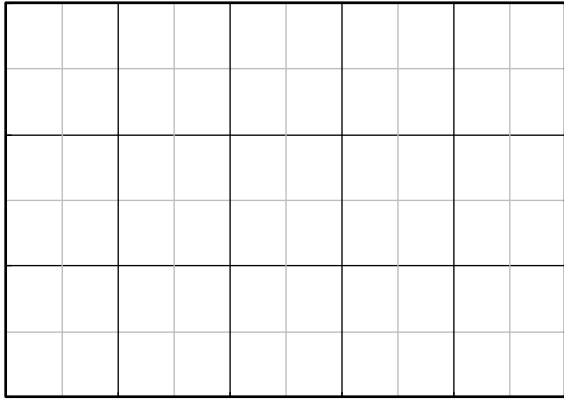


Figure 7. $R_{DS(on)}$ VS Drain Current

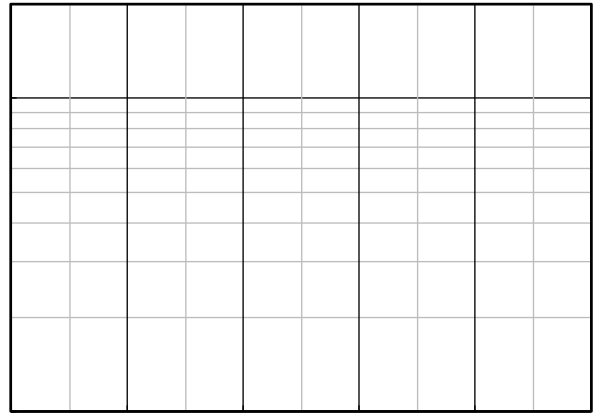


Figure 8. Forward characteristics of reverse diode

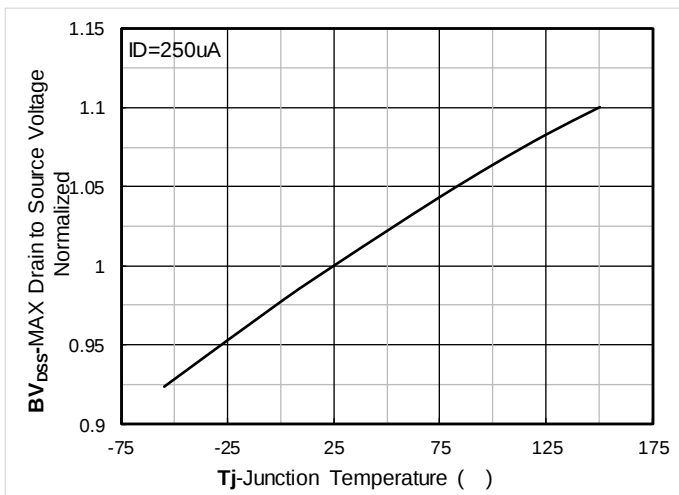


Figure 9. Normalized breakdown voltage

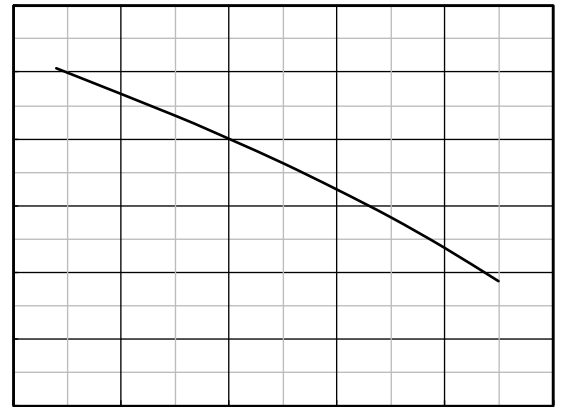


Figure 10. Normalized Threshold voltage

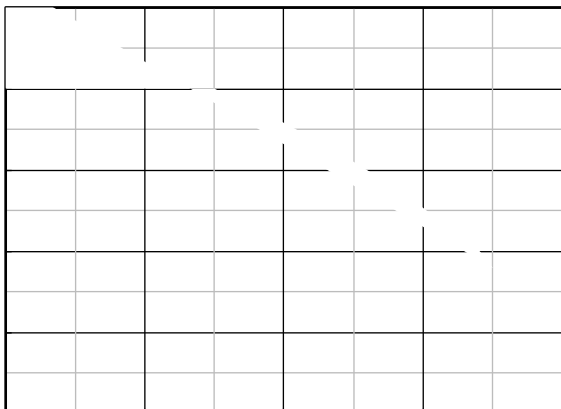


Figure 11. Current dissipation

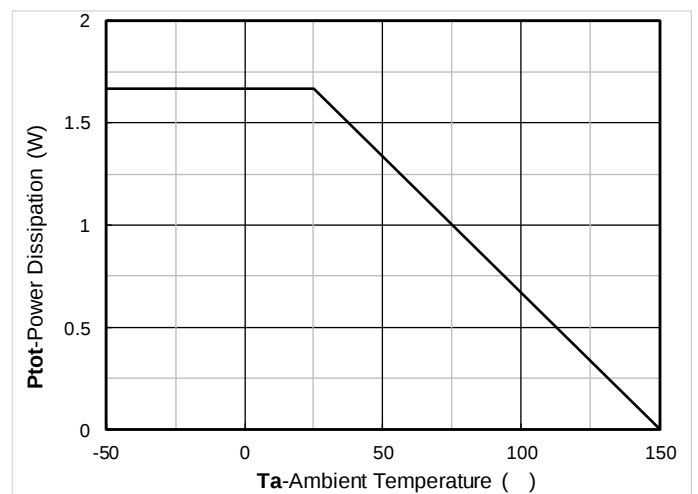


Figure 12. Power dissipation

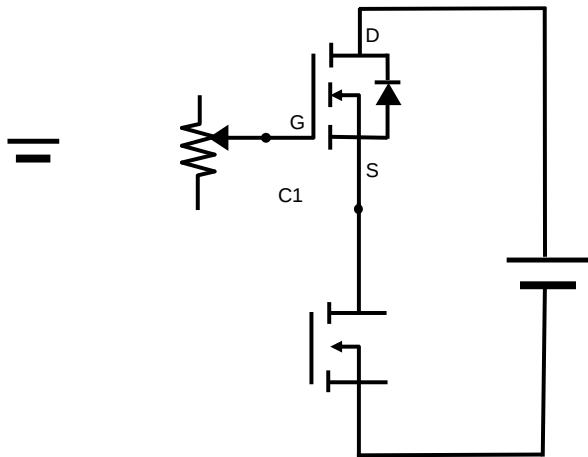


Figure B. Gate Charge Test Circuit & Waveform

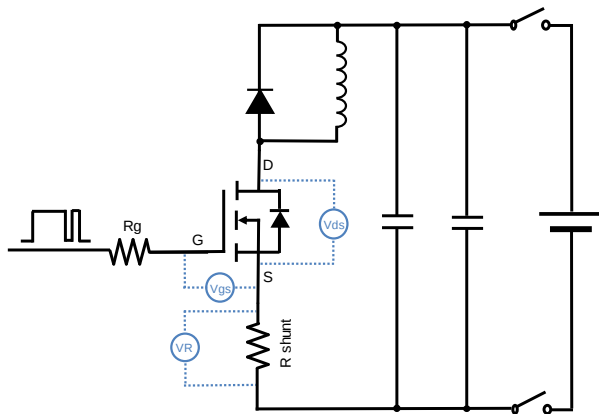


Figure C. Resistive Switching Test Circuit & Waveform

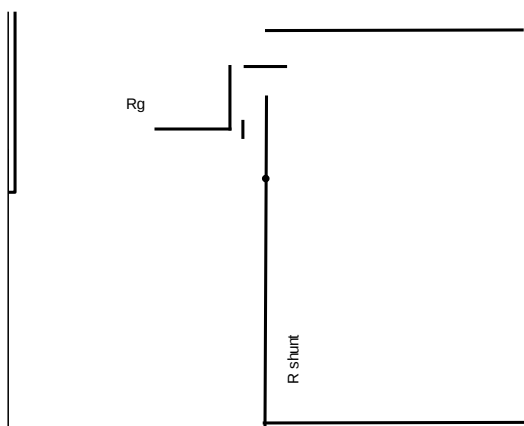
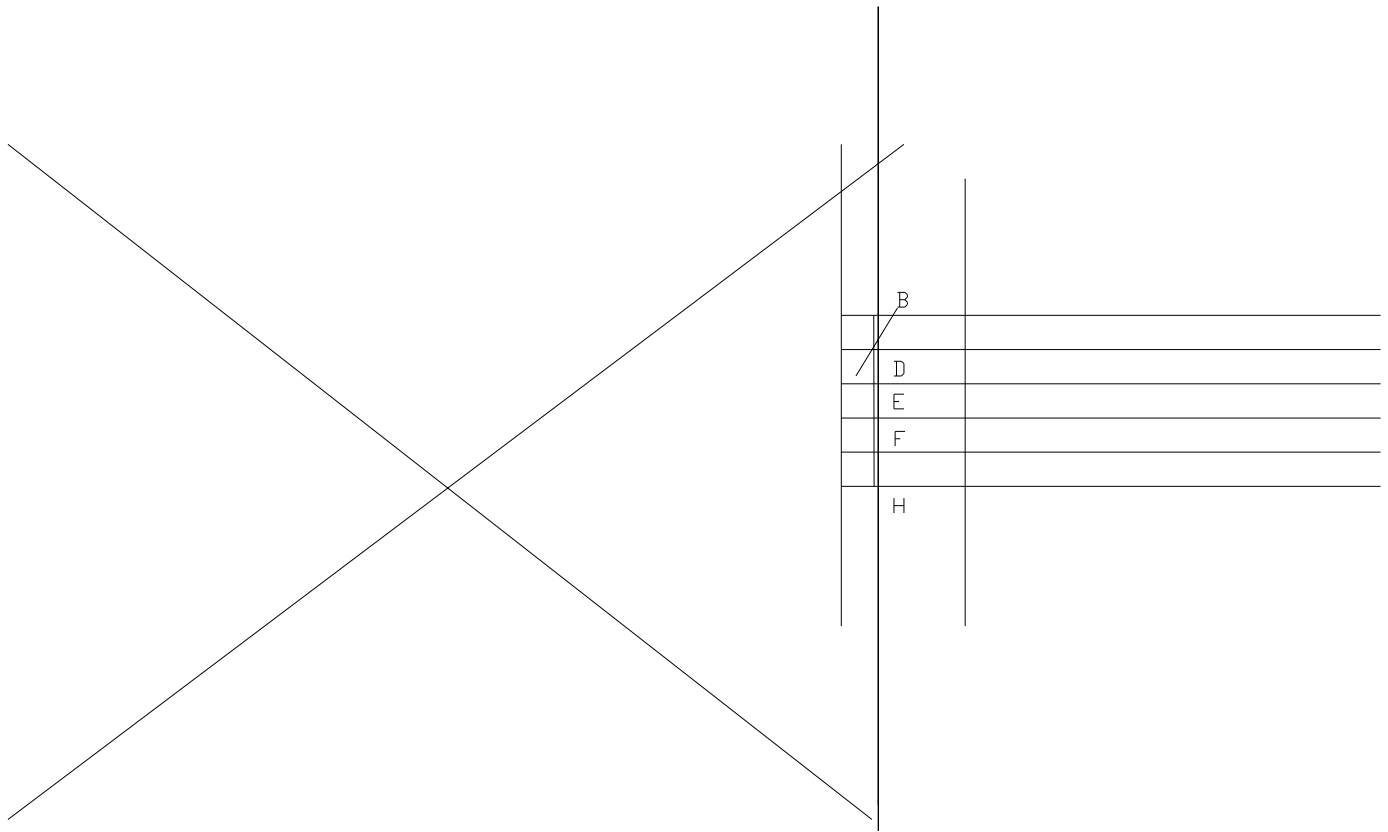


Figure D. Diode Recovery Test Circuit & Waveform



■ SOP8 Package information





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