



YJG58G10B

N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	100V
I_D	58A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	12m
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	17m
100% EAS Tested	
100% V_{DS} Tested	

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

Power switching application
Uninterruptible power supply
DC-DC convertor

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

Parameter	Symbol	Limit	Unit
Drain-Source Voltage	V_{DS}	100	V

Gate-source Voltage



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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Static Parameter						

Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=1mA$				
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Typical Electrical and Thermal Characteristics Diagrams

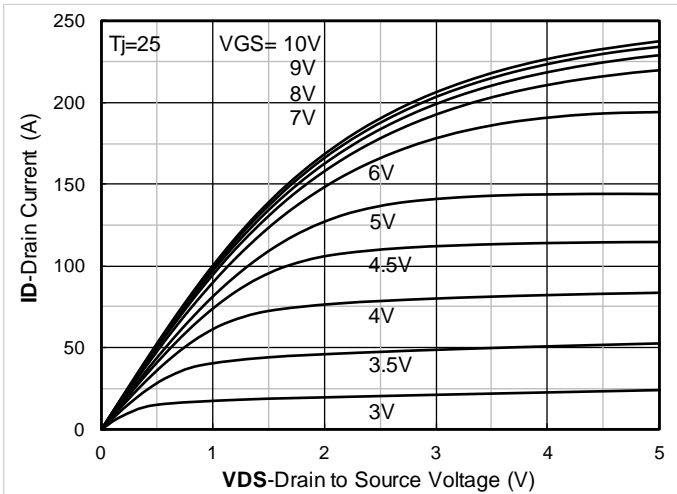


Figure 1. Output Characteristics

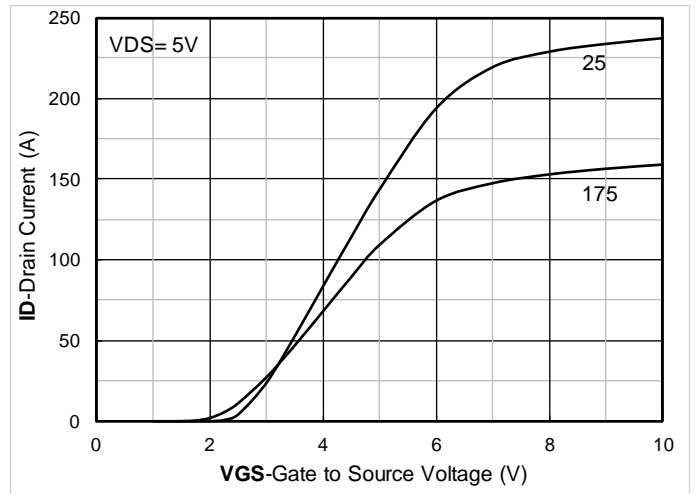


Figure 2. Transfer Characteristics

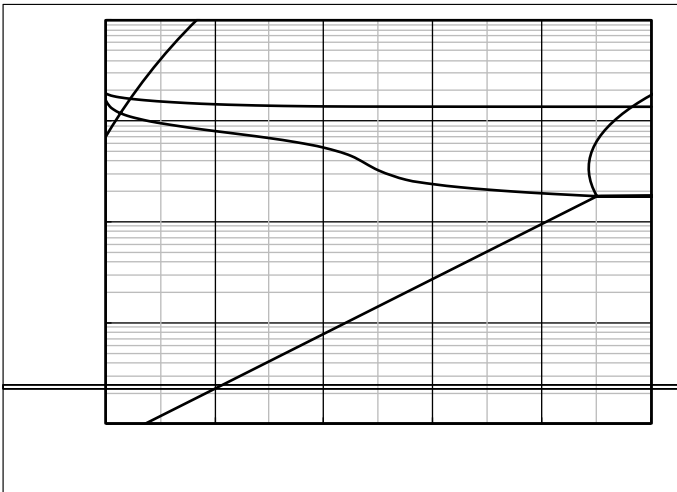


Figure 3. Capacitance Characteristics



Figure 4. Gate Charge

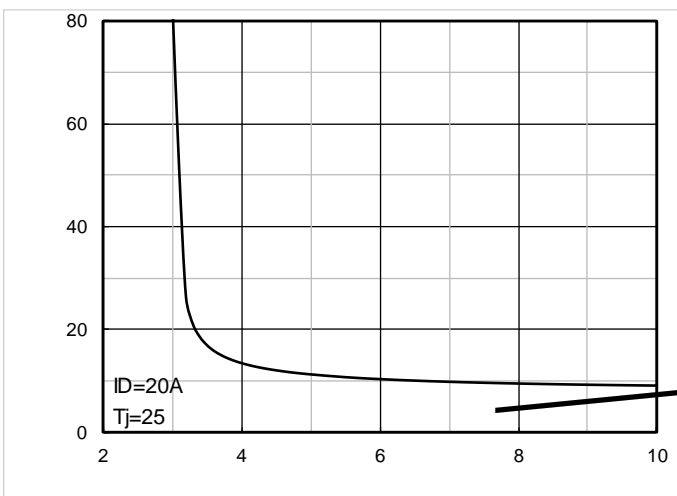


Figure 5. On-Resistance vs Gate to Source Voltage

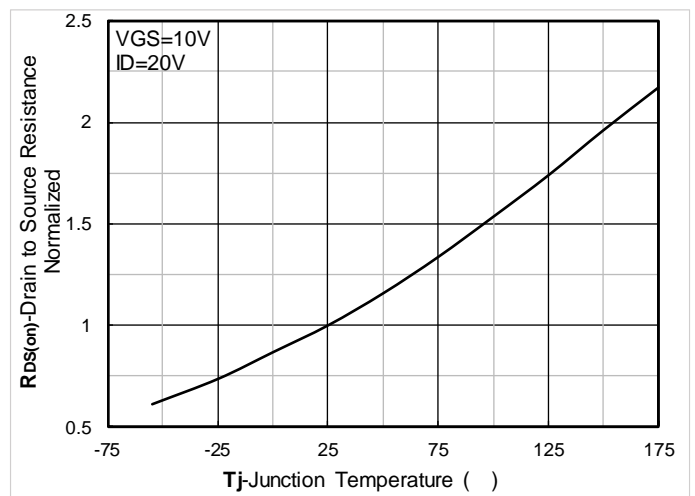


Figure 6. Normalized On-Resistance

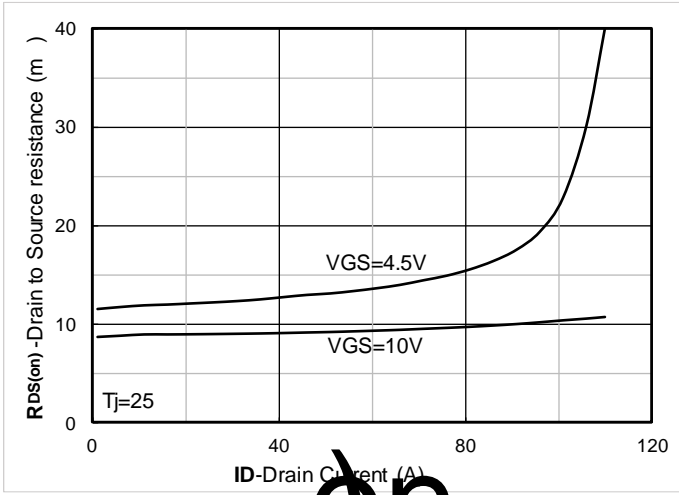
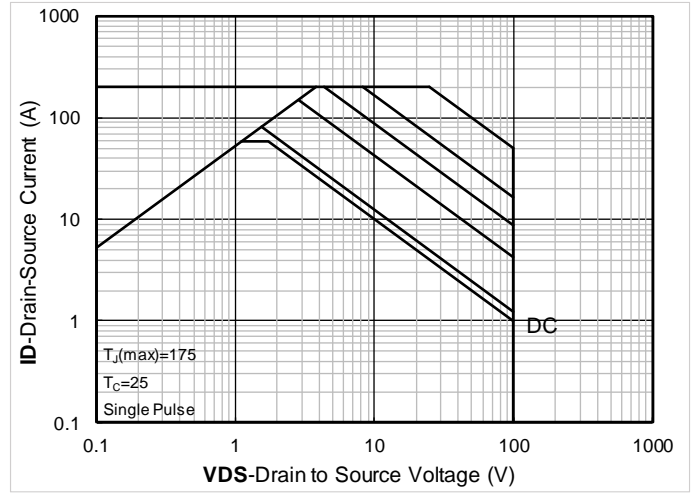
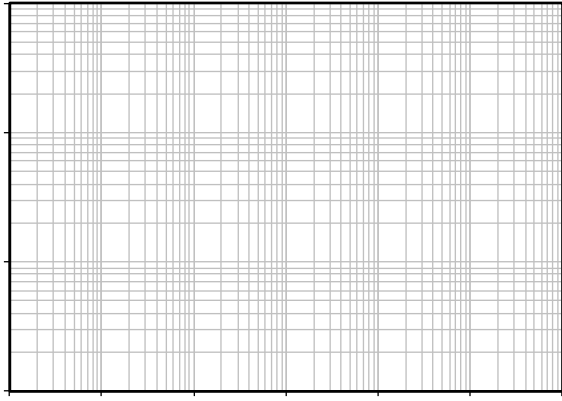


Figure 7. $R_{DS(on)}$ vs Drain Current



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Figure



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Figure B. Gate Charge Test Circuit & Waveform



Figure C. Resistive Switching Test Circuit & Waveform

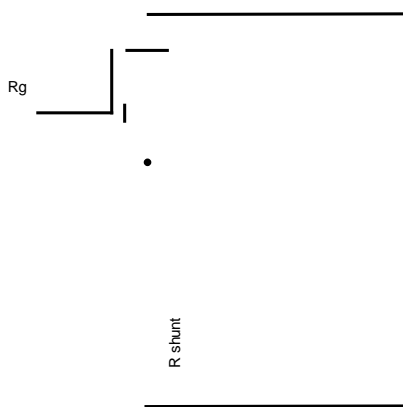


Figure D. Diode Recovery Test Circuit & Waveform





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