



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	100V
$I_D$	24A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	33m
$R_{DS(ON)}$ ( at $V_{GS}=4.5V$ )	41m
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

### Limiting Values

Parameter	Conditions	Symbol	Min	Max	Unit
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# YJQ033G10A

## Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D=250\mu A, T_j=25$	100	-	-	V
		$V_{GS}=0V, I_D=1mA, T_j=25$	100	-	-	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=80V, V_{GS}=0V, T_j=25$	-			



Typical Electrical and Thermal Characteristics Diagrams

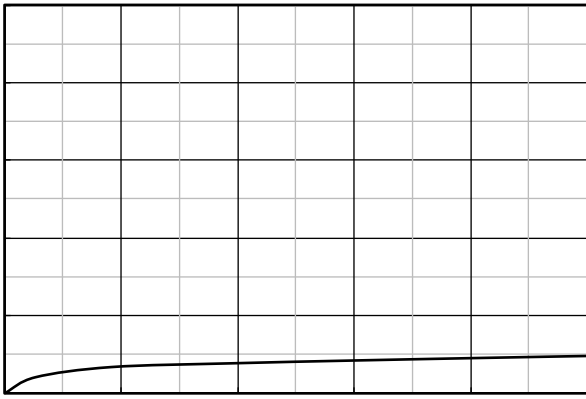


Figure 1. Output Characteristics; typical values

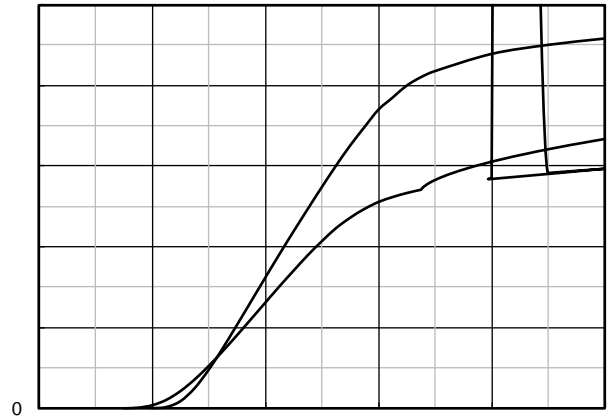


Figure 2. Transfer Characteristics; typical values

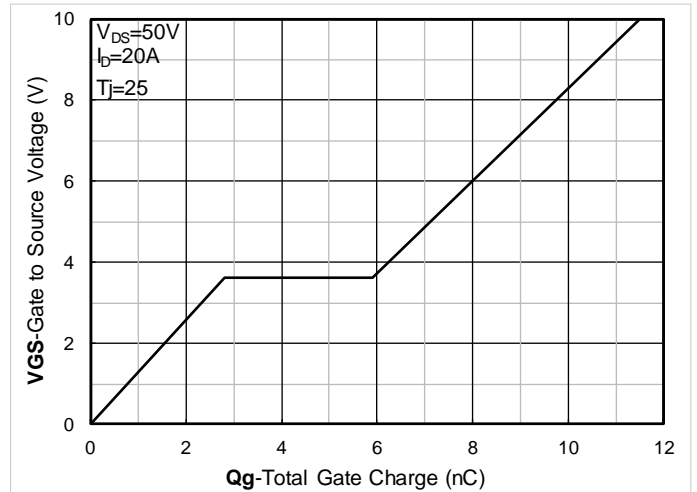


Figure 3. Capacitance Characteristics; typical values

Figure 4. Gate Charge; typical values

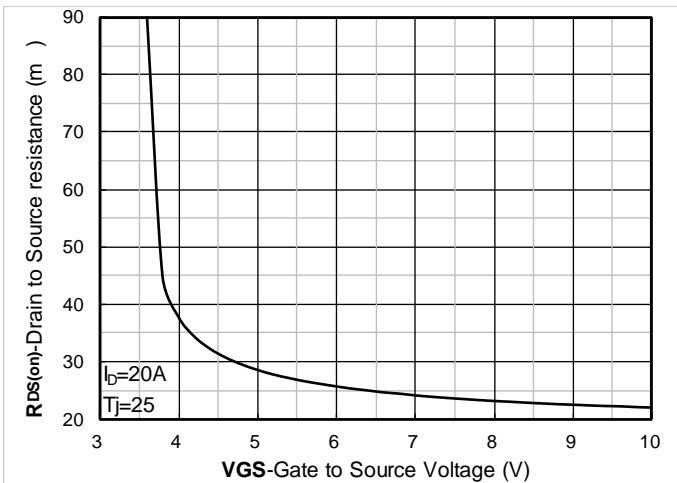


Figure 5. On-Resistance vs. Gate to Source Voltage; typical values

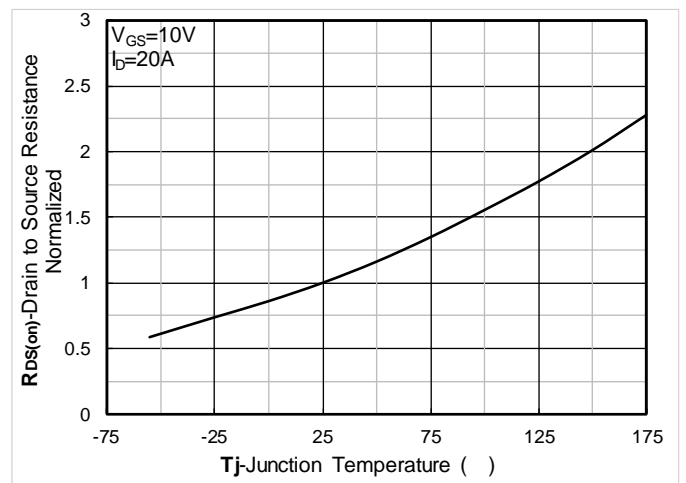


Figure 6. Normalized On-Resistance

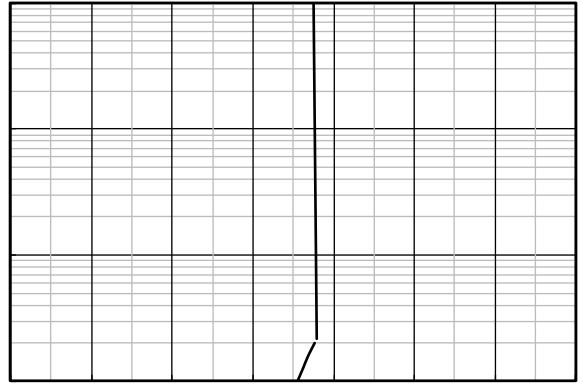


Figure 7.  $R_{DS(on)}$  vs. Drain Current; typical values

Figure 8. Forward characteristics of reverse diode; typical values

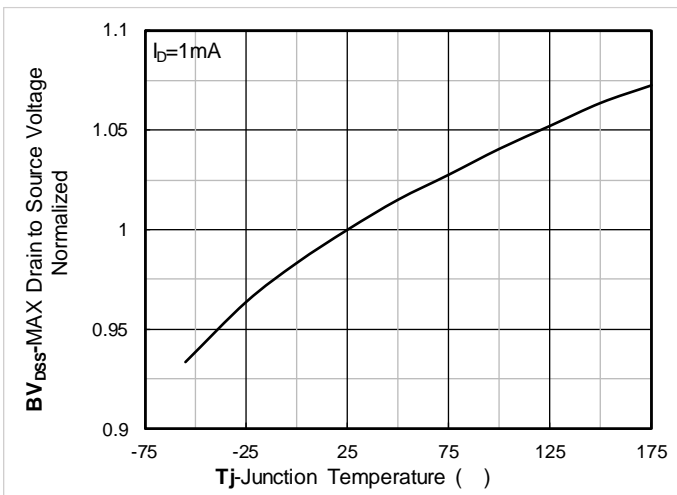


Figure 9. Normalized breakdown voltage

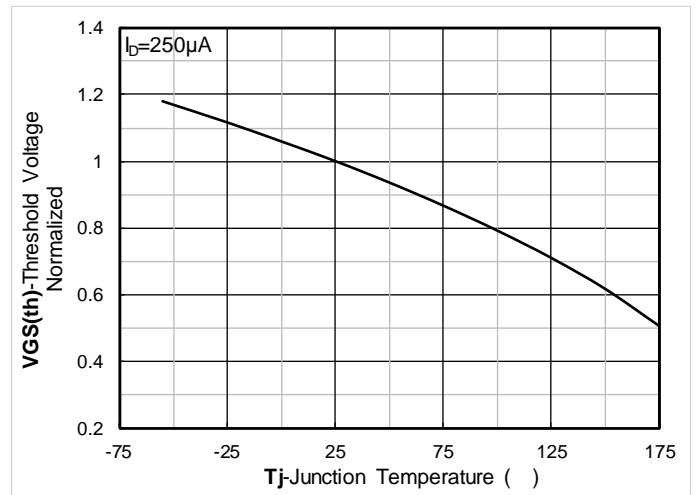


Figure 10. Normalized Threshold voltage

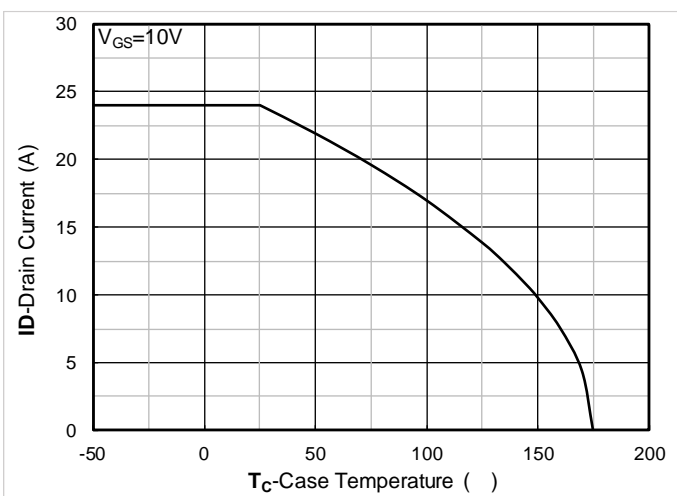


Figure 11. Current dissipation

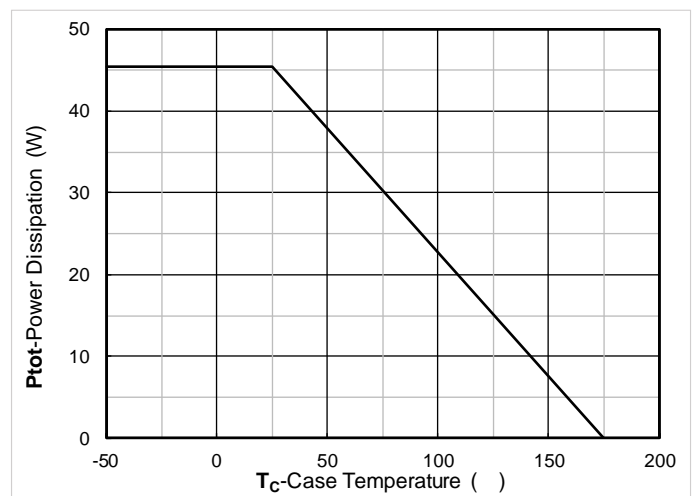


Figure 12. Power dissipation



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Figure 13. Maximum Transient Thermal Impedance

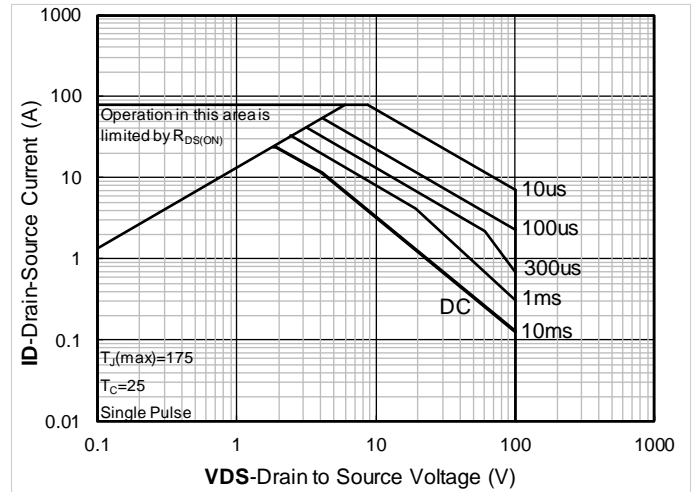


Figure 14. Safe Operation Area



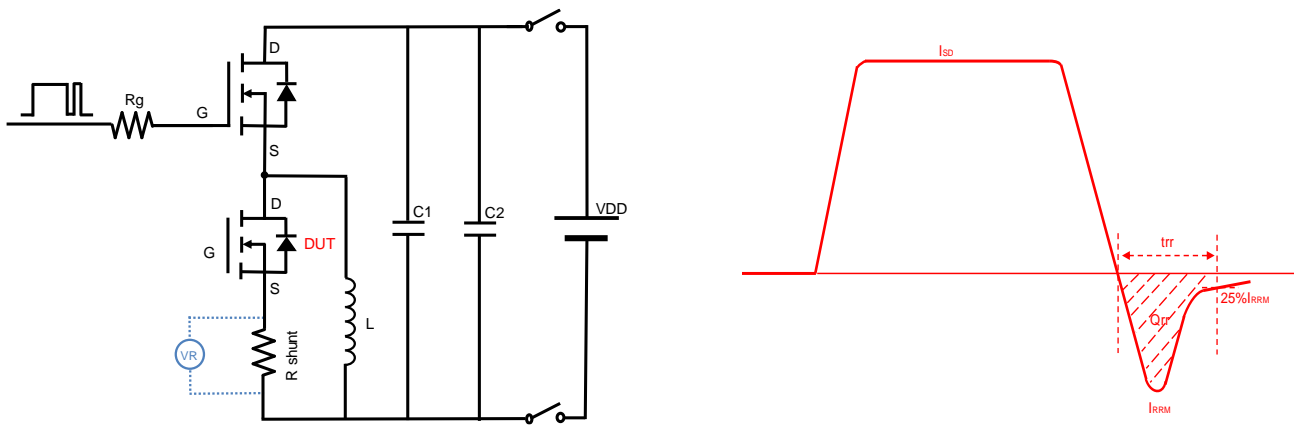
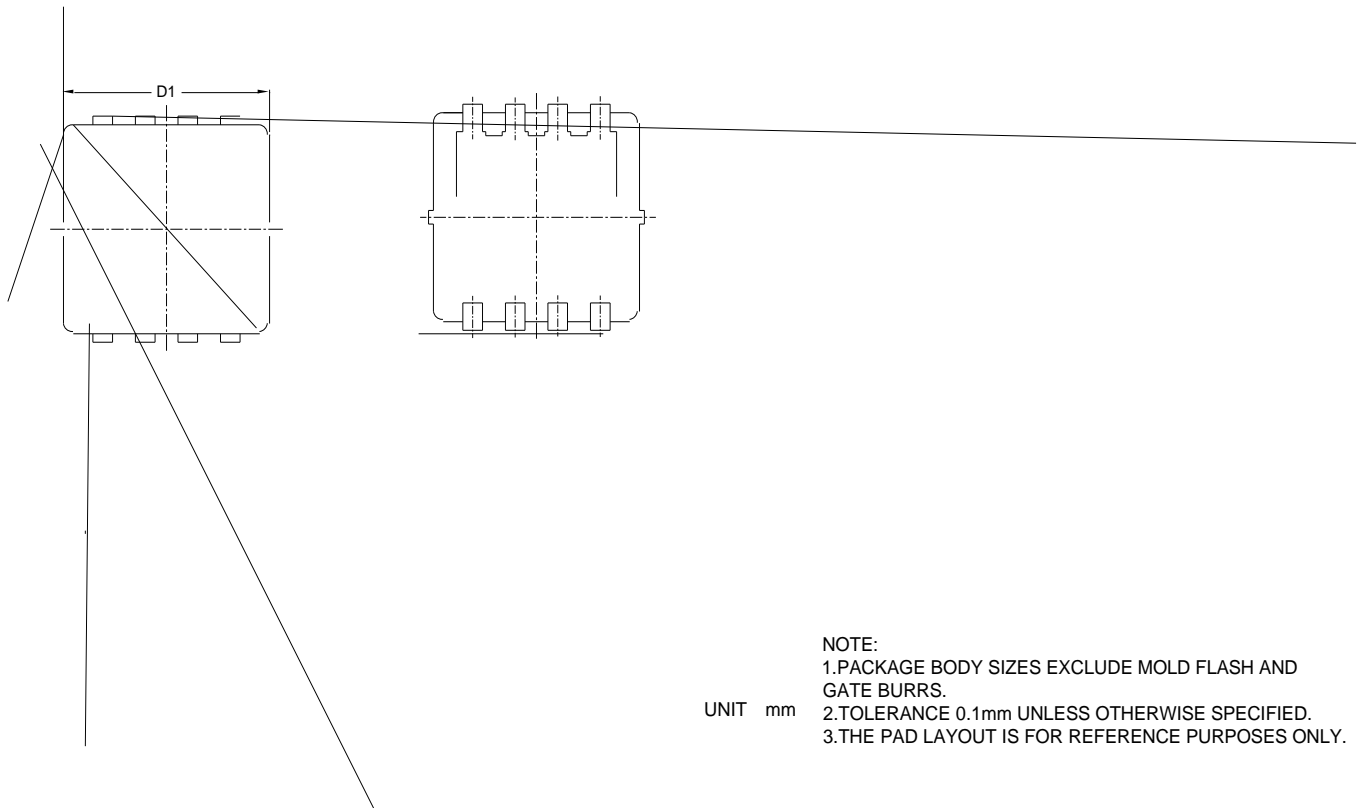


Figure D. Diode Recovery Test Circuit & Waveform



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## PDFN3333-8L-B-0.75mm Package information







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### Disclaimer

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