



## N-Channel Enhancement Mode Field Effect Transistor

### Product Summary

$V_{DS}$	650V
$I_D$	11A
$R_{DS(ON)}$ ( at $V_{GS}=10V$ )	380m
100% EAS Tested	
100% $V_{DS}$ Tested	

### General Description

Super Junction High Voltage MOSFET technology  
Low  $R_{DS(ON)}$  & FOM  
Extremely low switching loss  
Excellent stability and uniformity  
Moisture Sensitivity Level 1  
Epoxy Meets UL 94 V-0 Flammability Rating  
Halogen Free

### Applications

Server power  
Charger  
PD Adapter

**Absolute Maximum Ratings** ( $T_A=25$



# YJD11C65HJ

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
<b>Static Parameter</b>						
Drain-Source Breakdown Voltage	$BV_{DSS}$	$V_{GS}=0V, I_D$	650	-	-	V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=650V, V_{GS}=0V$	-	-	1	
		$V_{DS}=650V, V_{GS}=0V, T_J=150$	-	-	100	



# YJD11C65HJ

## Typical Electrical and Thermal Characteristics Diagrams

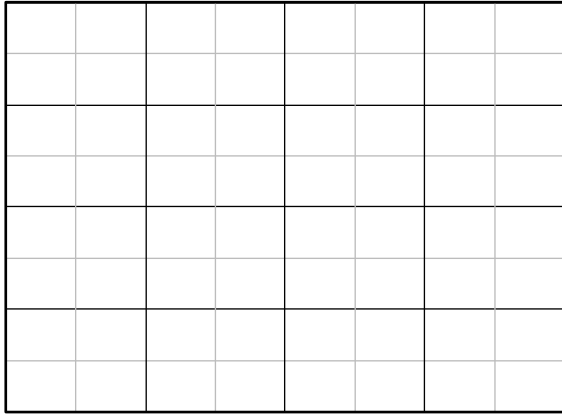


Figure 1. Output Characteristics

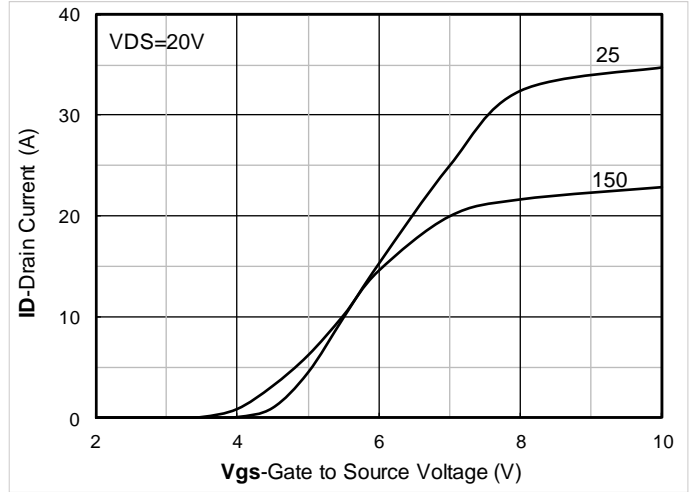


Figure 2. Transfer Characteristics

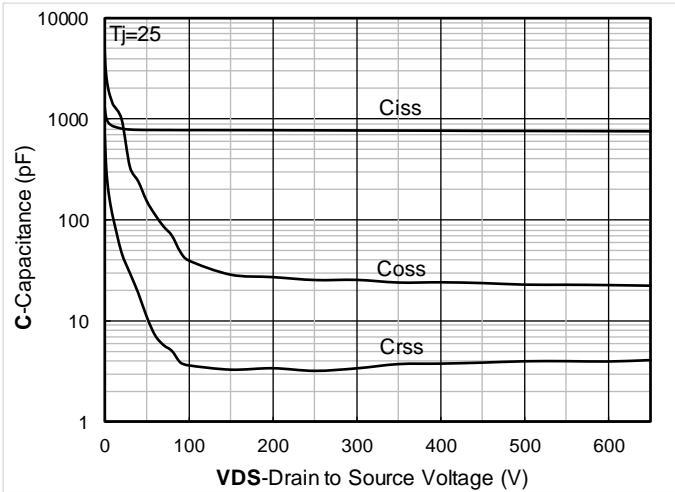


Figure 3. Capacitance Characteristics

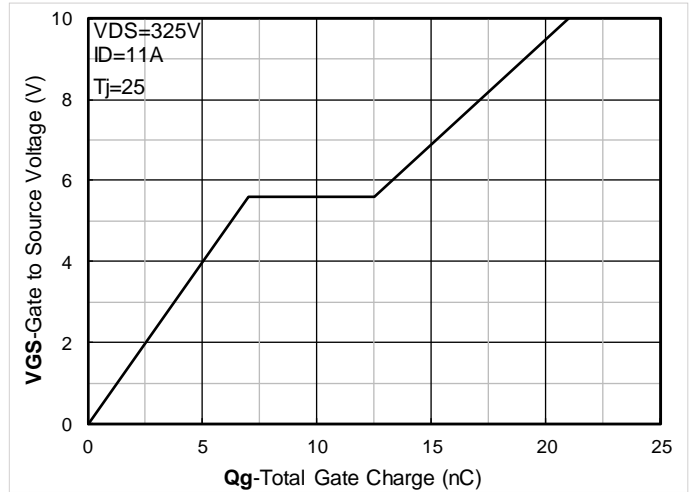


Figure 4. Gate Charge

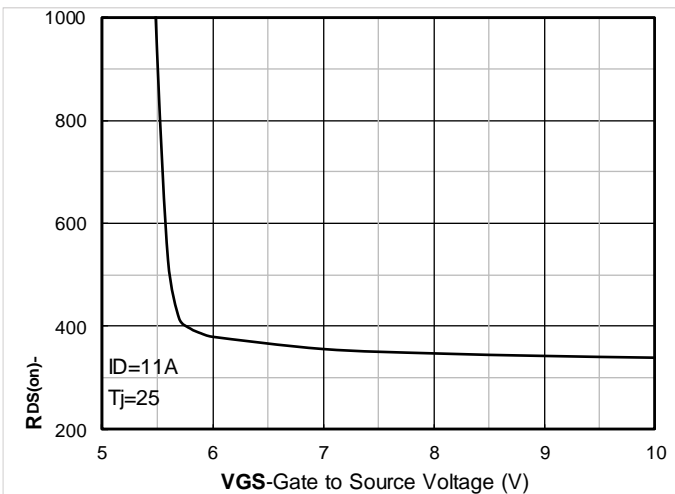


Figure 5. On-Resistance vs Gate to Source Voltage

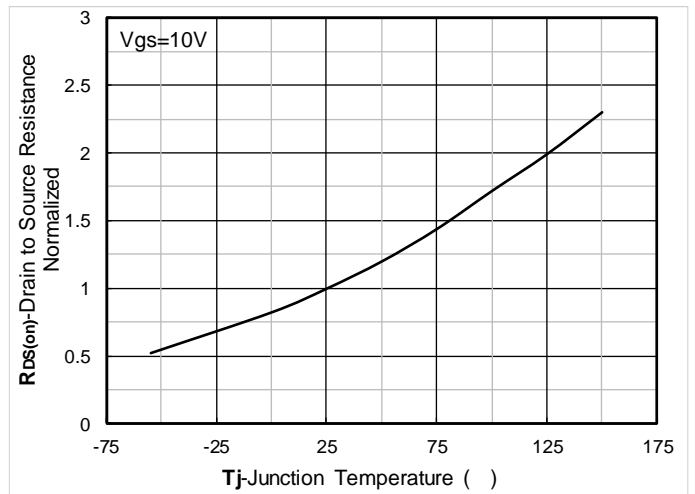


Figure 6. Normalized On-Resistance



# YJD11C65HJ

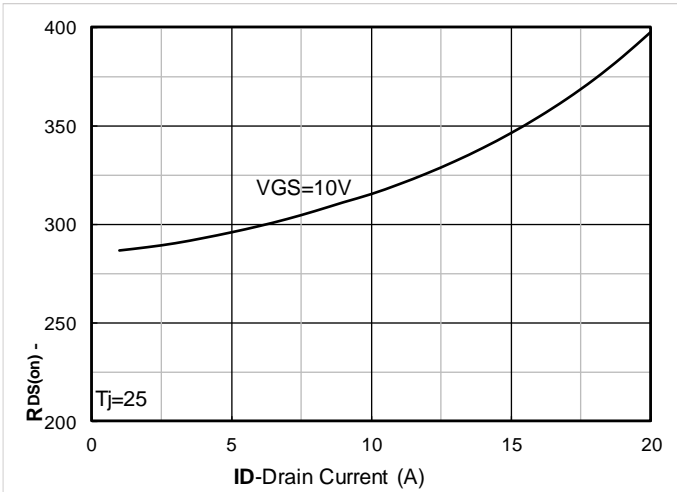


Figure 7. RDS(on) VS Drain Current

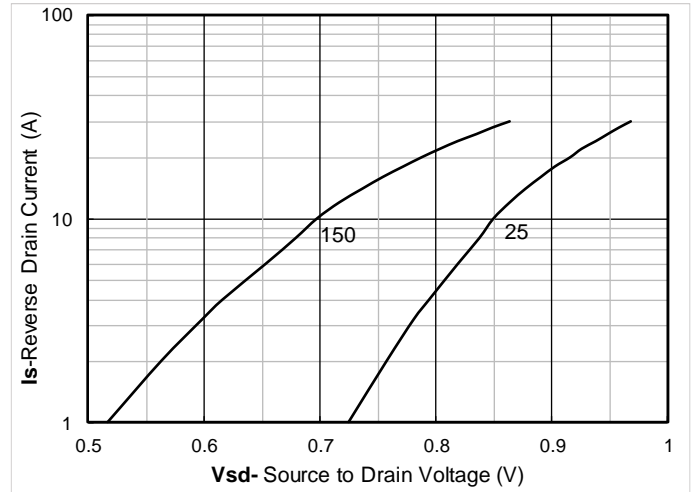


Figure 8. Forward characteristics of reverse diode

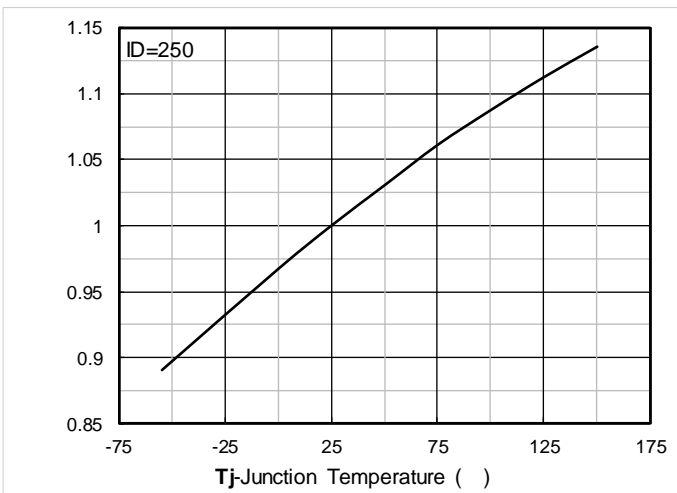


Figure 9. Normalized breakdown voltage

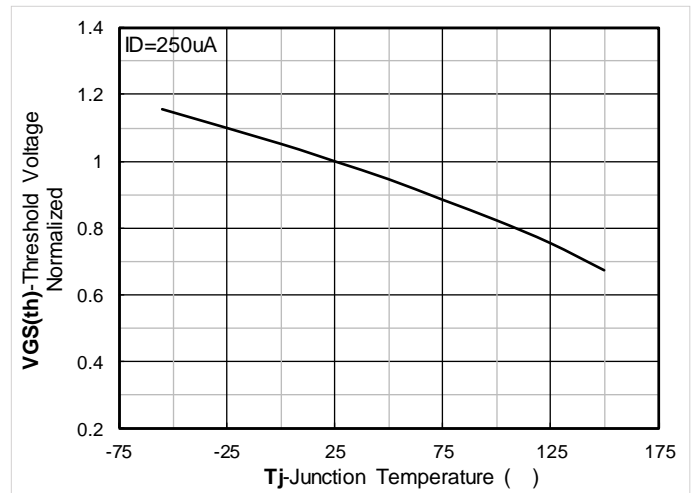


Figure 10. Normalized Threshold voltage

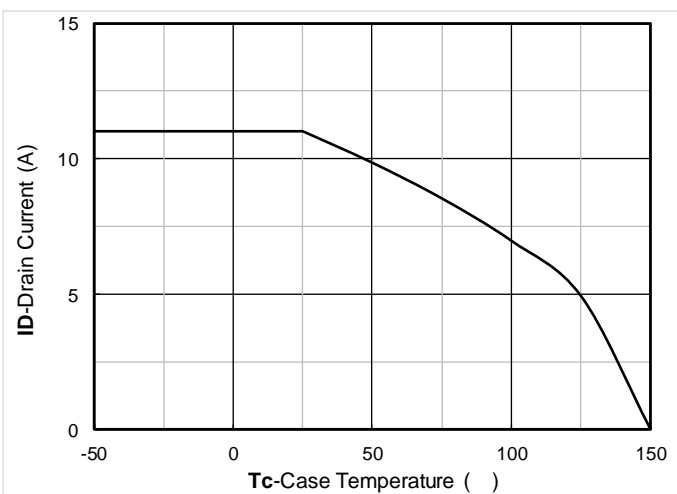


Figure 11. Current dissipation

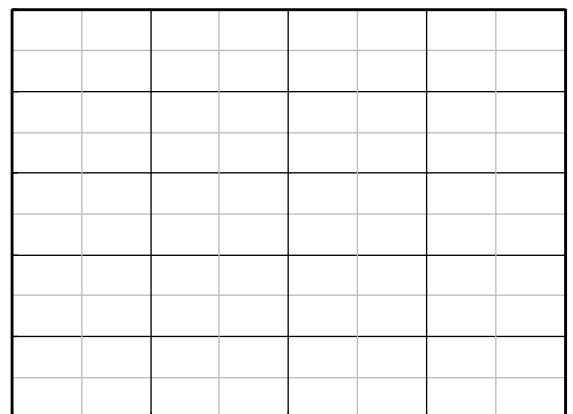


Figure 12. Power dissipation

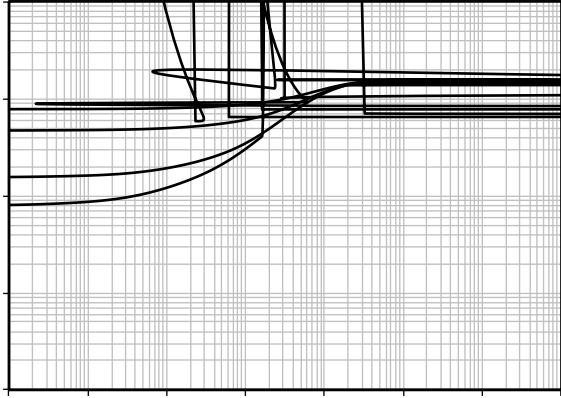


Figure 13. Maximum Transient Thermal Impedance

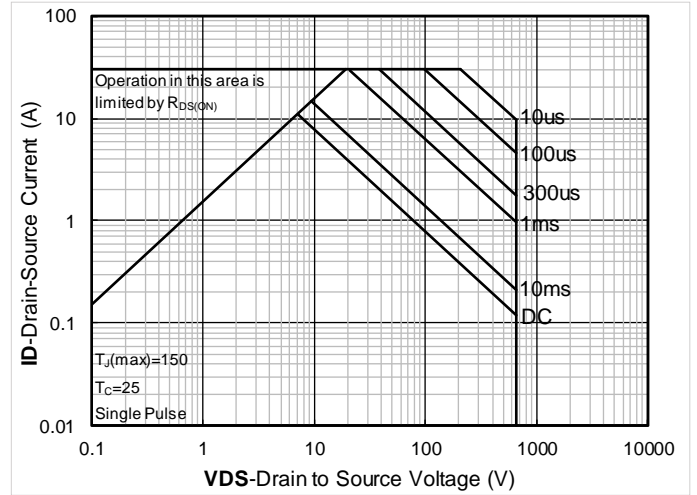


Figure 14. Safe Operation Area

## Test Circuits & Waveforms

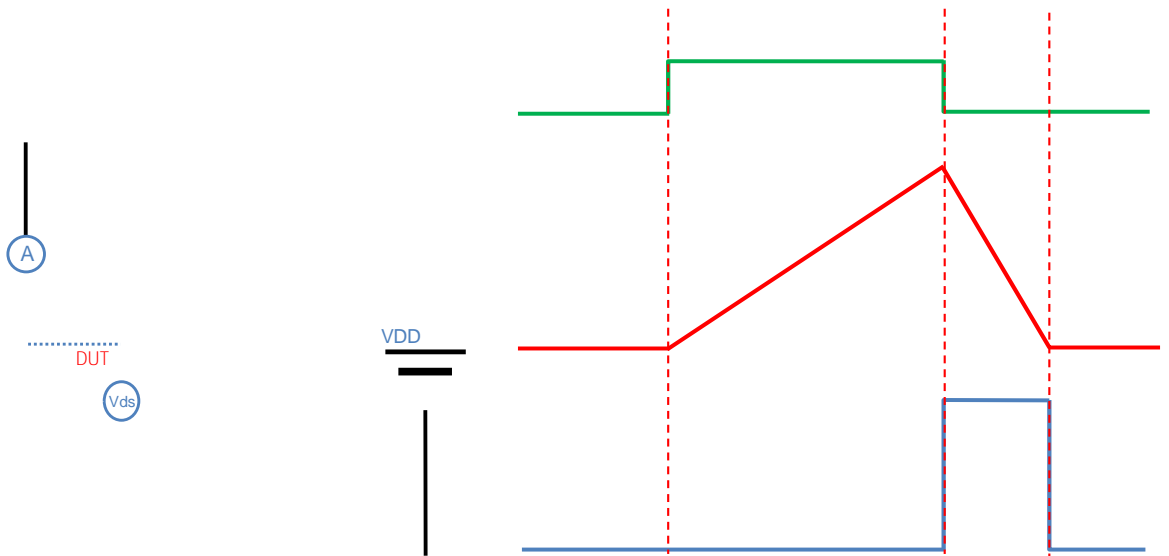


Figure A. Unclamped Inductive Switching (UIS) Test Circuit & Waveform

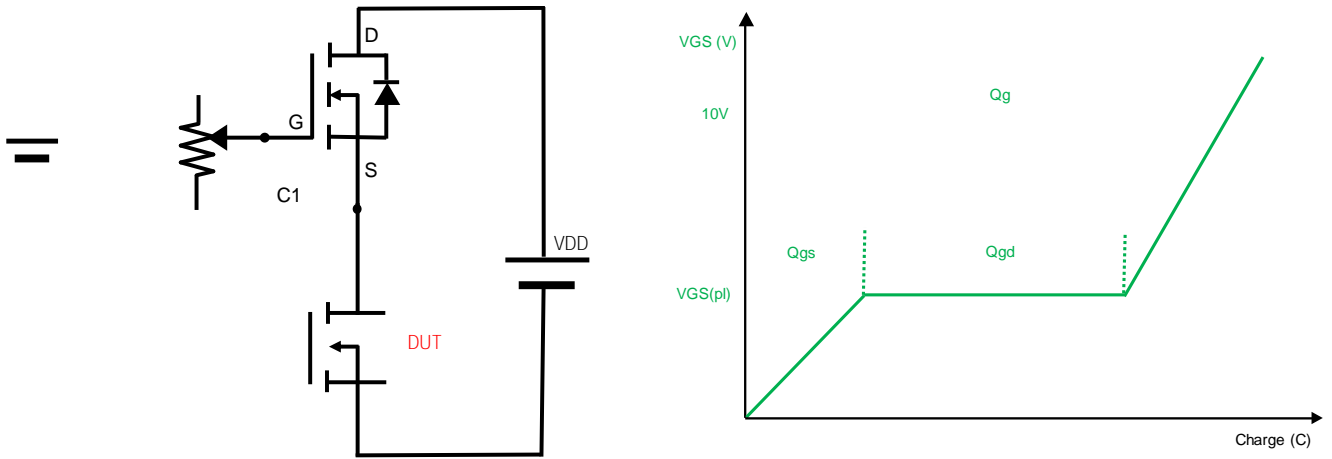


Figure B. Gate Charge Test Circuit & Waveform



Figure C. Resistive Switching Test Circuit & Waveform



Figure D. Diode Recovery Test Circuit & Waveform



TO-252-B

**YJD11C65HJ**