

N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	650V
I_D	8A
$R_{DS(ON)}$ (at $V_{GS}=10V$)	580m
I_{DSS}	100% EAS Tested
V_{GS}	100% V_{DS} Tested

General Description

YJD08C65HJ is a N-Channel Enhancement Mode MOSFET, it is suitable for switching and amplifying applications.

YJD08C65HJ

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	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	
Gate-Body Leakage Current	I _{GSS}	V _{GS} = ±30V, V _{DS} =0V	-	-	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D	2.8	3.3	3.8	V
Static Drain-Source On-Resistance	R _{DS(ON)}	V _{GS} =10V, I _D =4A	-	530	580	m
Diode Forward Voltage	V _{SD}	I _S =8A, V _{GS} =0V	-	-	1.2	V
Gate resistance	R _G	f=1MHz	-	15	-	
Maximum Body-Diode Continuous Current	I _S		-	-	8	A
Dynamic Parameters						

Input Capacitance	C _{iss}	-	465	-	
		V _{DS} =325V, V _{GS} =0V, f=1MHz			pF

■ Typical Electrical and Thermal Characteristics Diagrams

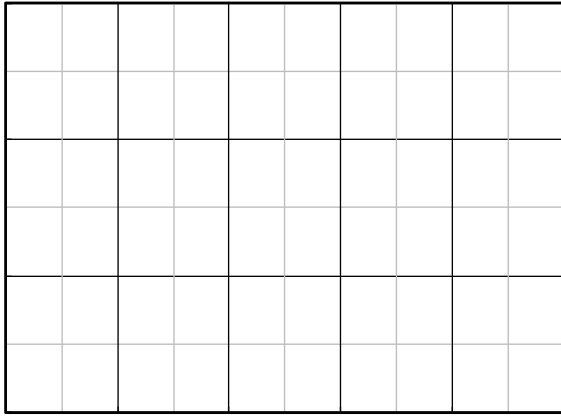


Figure 1. Output Characteristics

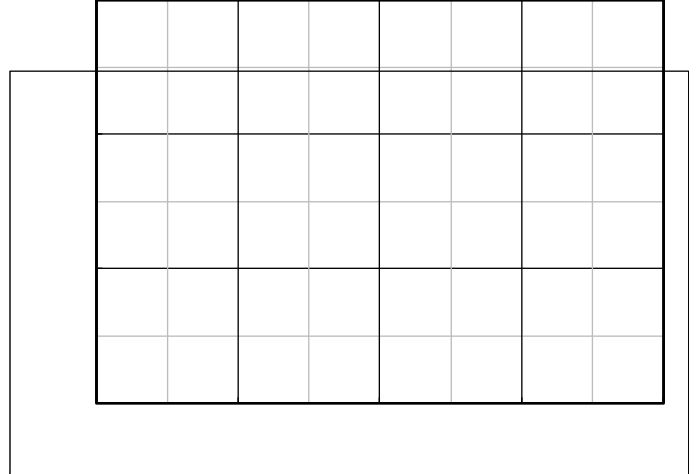


Figure 2. Transfer Characteristics

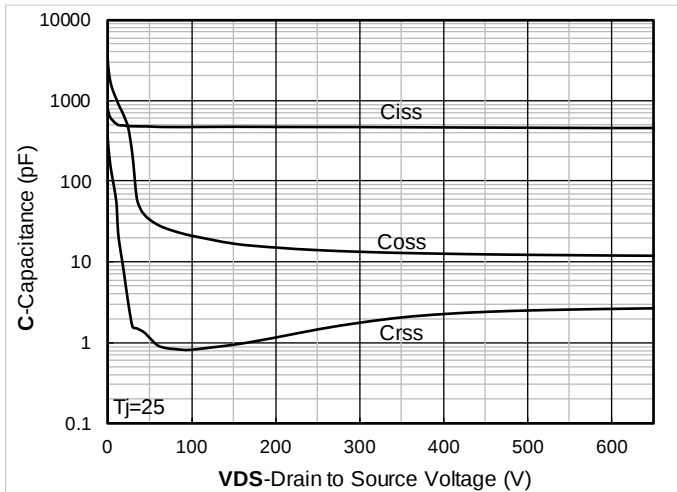


Figure 3. Capacitance Characteristics

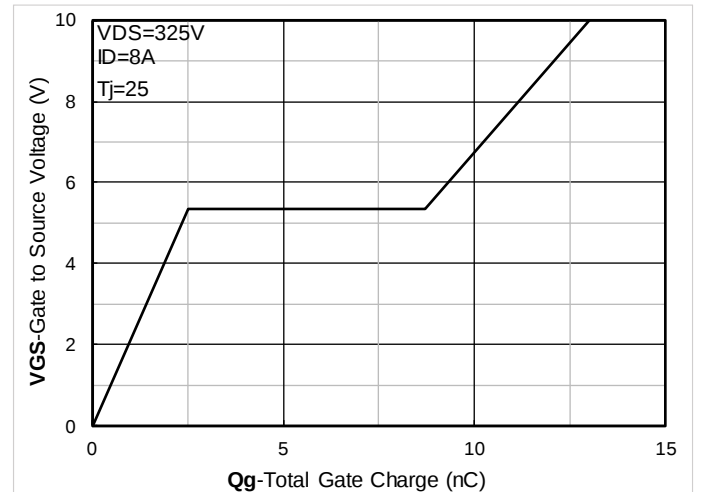


Figure 4. Gate Charge

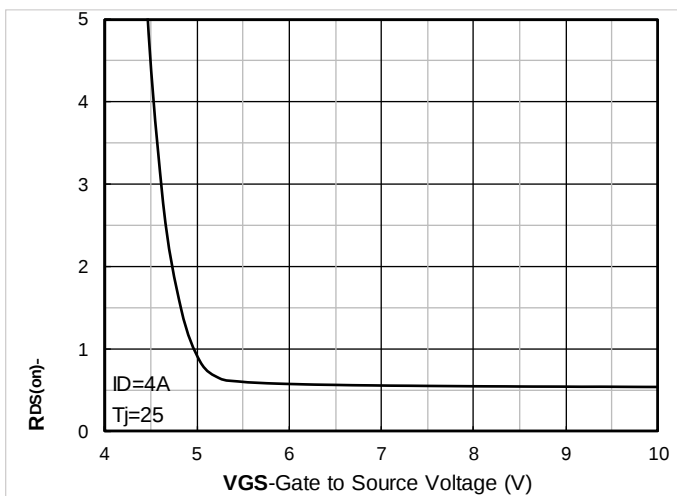


Figure 5. On-Resistance vs Gate to Source Voltage

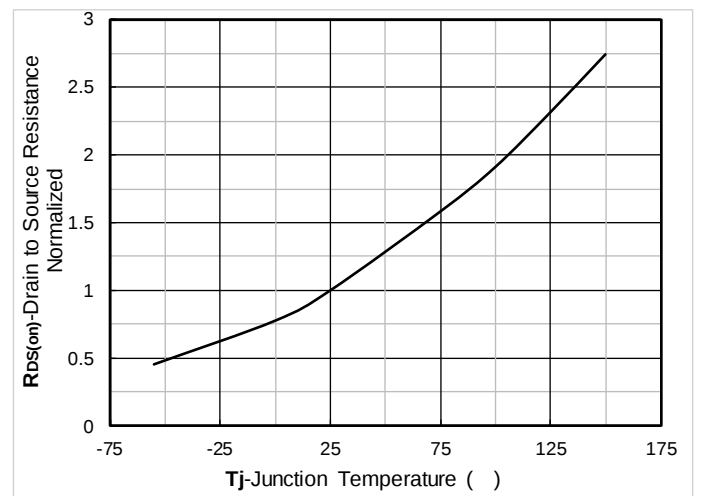


Figure 6. Normalized On-Resistance

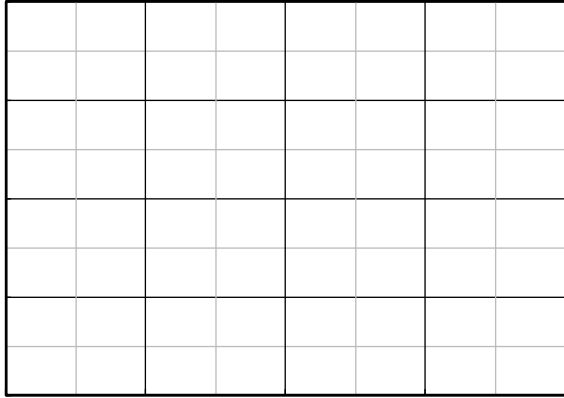


Figure 7. $R_{DS(on)}$ VS Drain Current

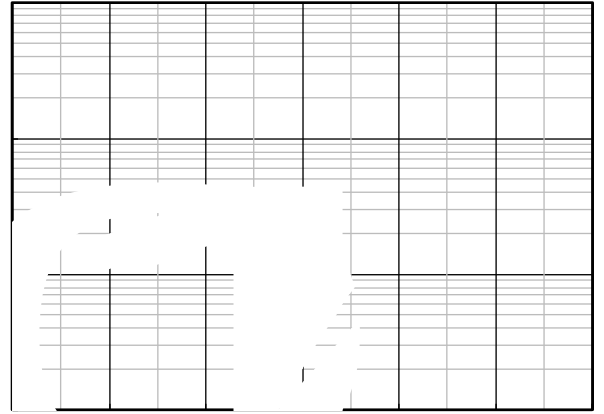


Figure 8. Forward characteristics of reverse diode

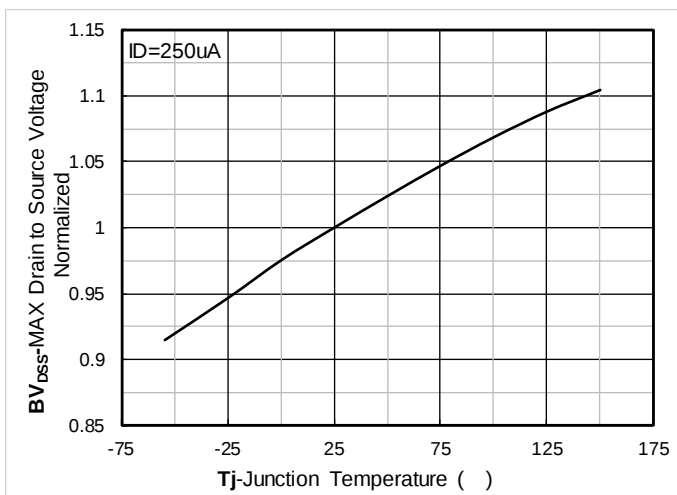


Figure 9. Normalized breakdown voltage

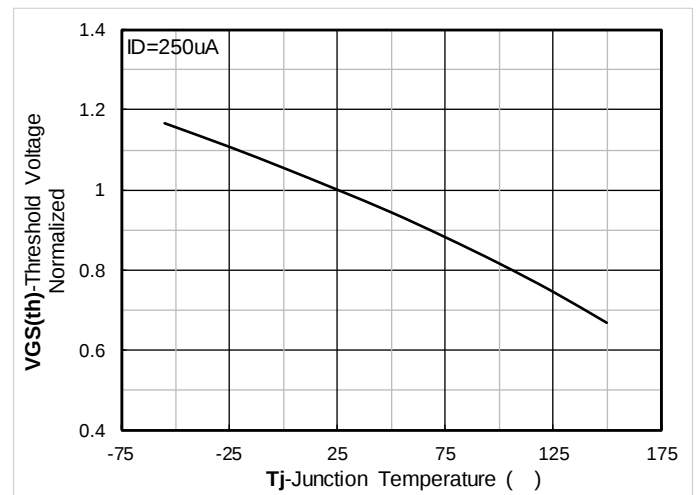


Figure 10. Normalized Threshold voltage

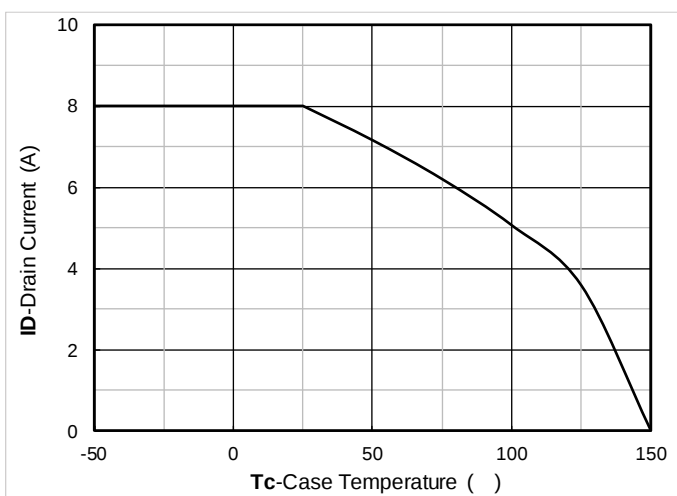


Figure 11. Current dissipation

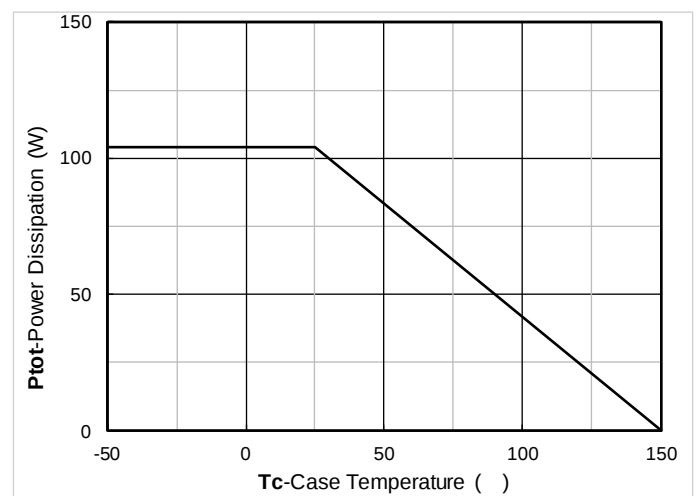


Figure 12. Power dissipation

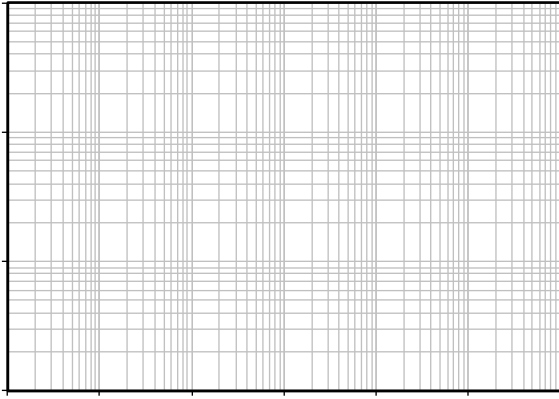


Figure 13. Maximum Transient Thermal Impedance

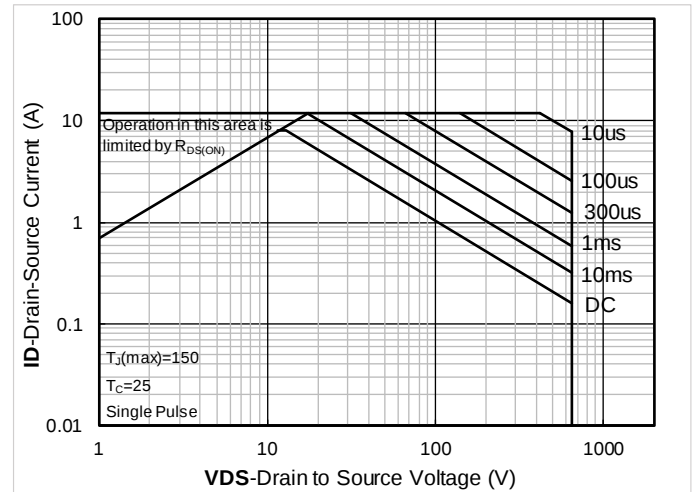


Figure 14. Safe Operation Area

Test Circuits

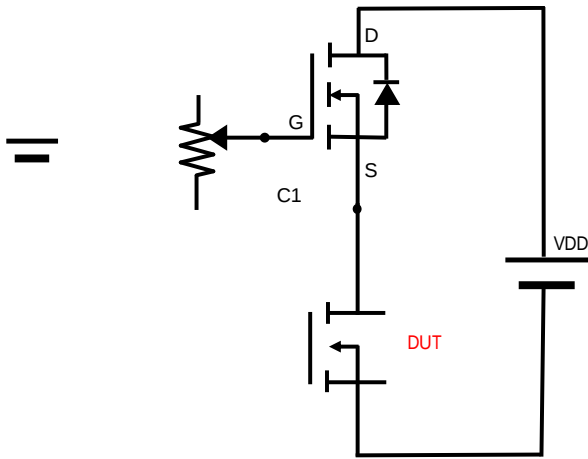


Figure B. Gate Charge Test Circuit & Waveform

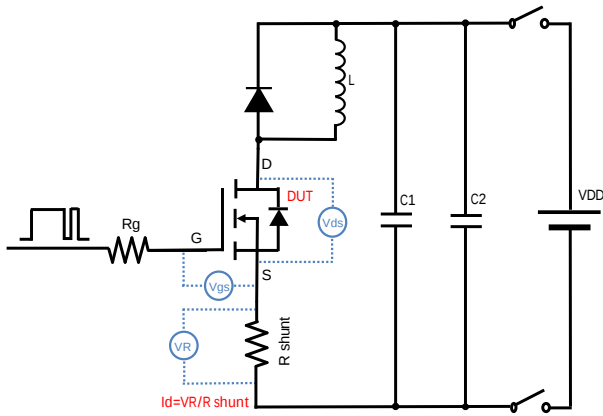


Figure C. Resistive Switching Test Circuit & Waveform

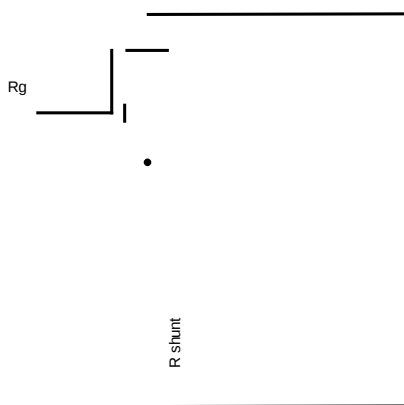


Figure D. Diode Recovery Test Circuit & Waveform

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