



P-Channel Enhancement Mode Field Effect Transistor

Product Summary

X V_{DS}	-80 V
X I_D	-50 A
X $R_{DS(ON)}$ (at $V_{GS}=-10V$)	17 m Ω
X $R_{DS(ON)}$ (at $V_{GS}=-6V$)	19 m Ω
X $R_{DS(ON)}$ (at $V_{GS}=-4.5V$)	22 m Ω
X 100% EAS Tested	
X 100% V_{DS} Tested	

General Description

- X Split gate trench MOSFET technology
- X Low $R_{DS(on)}$ & FOM
- X Excellent stability and uniformity
- X Moisture Sensitivity Level 1
- X Epoxy Meets UL 94 V-0 Flammability Rating
- X Halogen Free

Applications

- X Power management
- X Portable equipment

Ω Absolute Maximum Ratings



YJG50GP08A

Ω 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> A	-80	-	-	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =-80V, V _{GS} =0V	-	-	-1	> A
		V _{DS} =-80V, V _{GS} =0V, T _J =150	-	-	-100	
Gate-Body Leakage Current	I _{GSS}	V _{GS} = ±18V, V _{DS} =0V	-	-	±100	nA
Gate Threshold Voltage	V _{GS(th)}	V _{DS} = V _{GS} , I _D =-250> A	-1.2	-2.1	-3	



Typical Electrical and Thermal Characteristics Diagrams

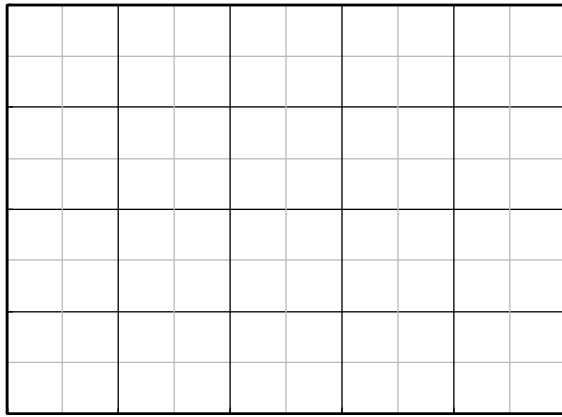


Figure 1. Output Characteristics

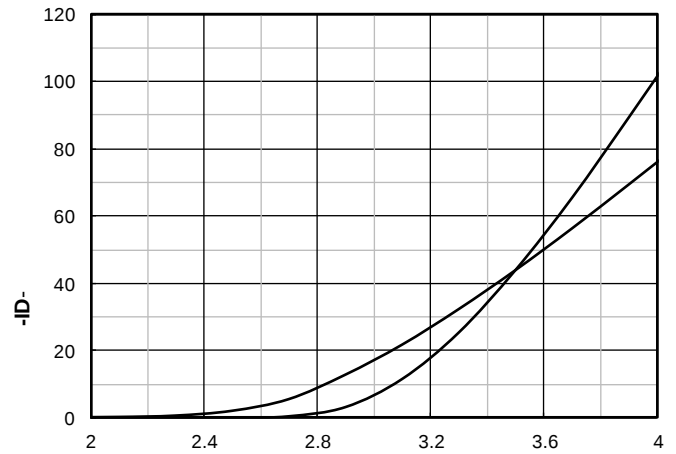


Figure 2. Transfer Characteristics

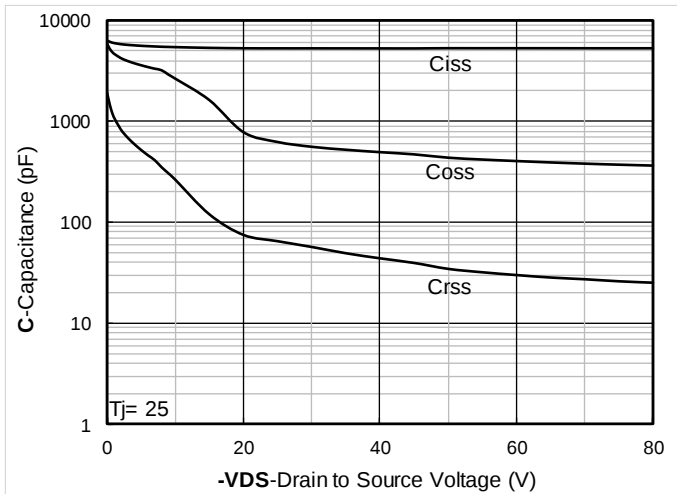


Figure 3. Capacitance Characteristics

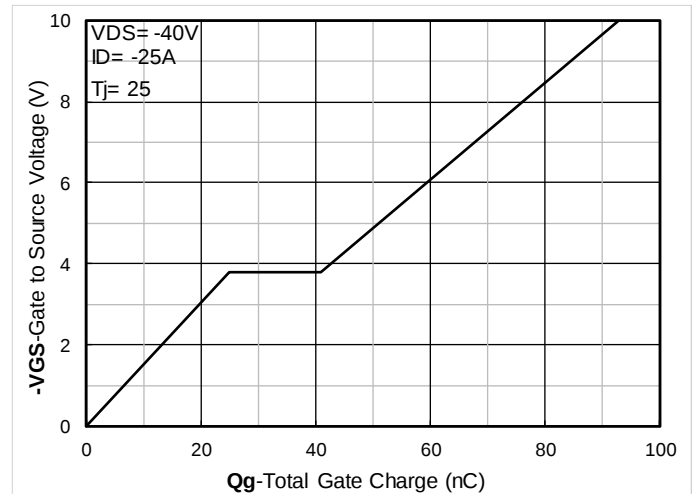


Figure 4. Gate Charge

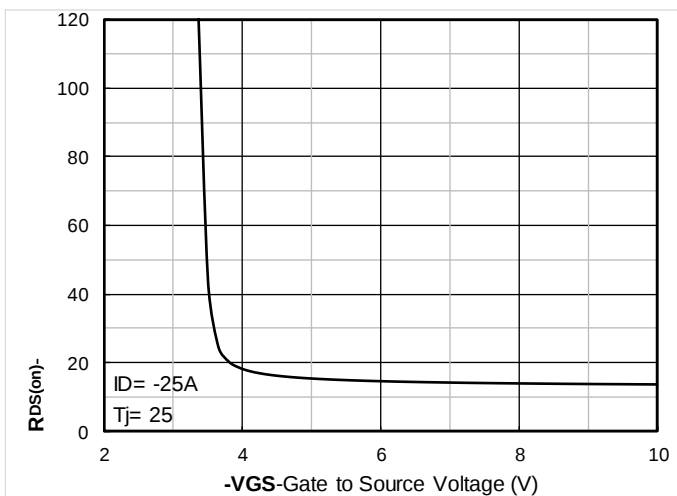


Figure 5. On-Resistance vs Gate to Source Voltage

Figure 6. Normalized On-Resistance



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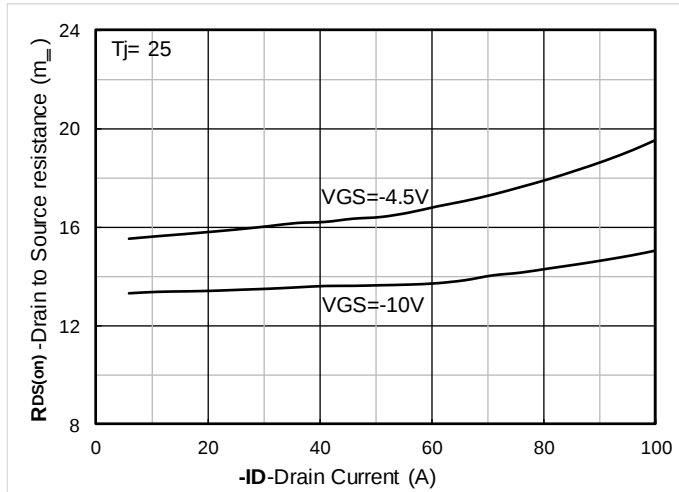


Figure 7. $R_{DS(on)}$ VS Drain Current

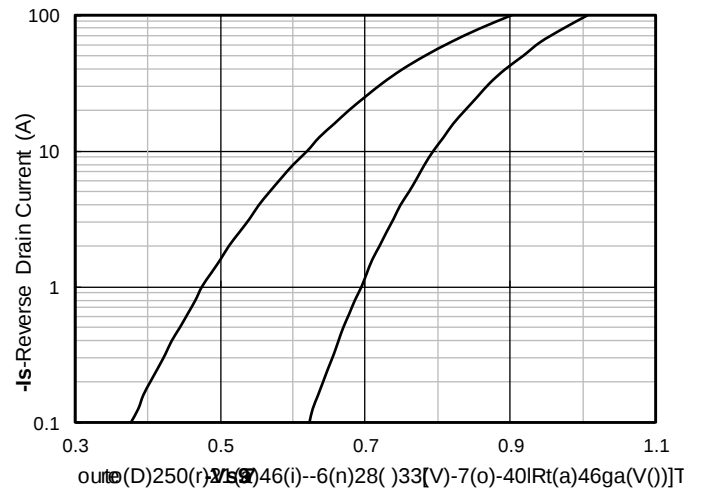


Figure 8. Forward characteristics of reverse diode

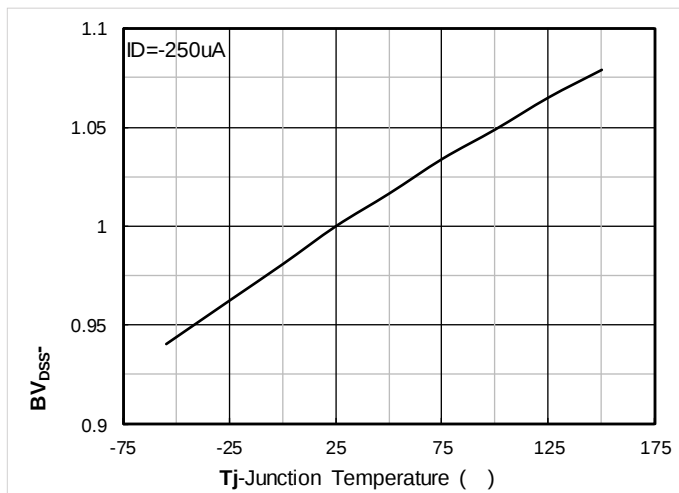


Figure 9. Normalized breakdown voltage

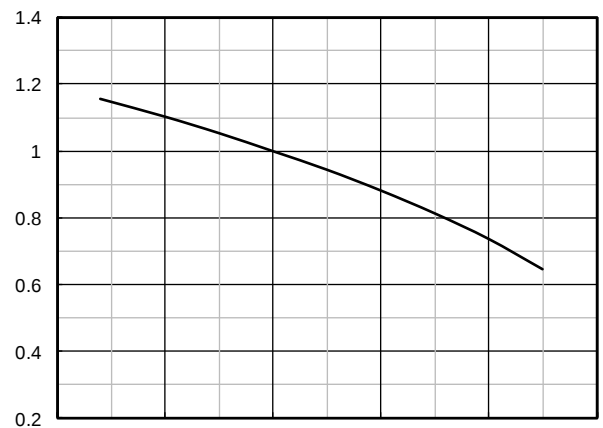


Figure 10. Normalized Threshold voltage





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