



YJD80GP06B

P-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	-60 V
I_D	-80 A
$R_{DS(ON)}$ (at $V_{GS}=-10V$)	8.4 m
$R_{DS(ON)}$ (at $V_{GS}=-6V$)	11 m
100% EAS Tested	
100% V_{DS} Tested	

General Description

Split gate trench 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

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

Parameter	Symbol	Limit	Unit
Drain-source Voltage	V_{DS}	-60	V
Gate-source Voltage	V_{GS}	± 18	V

$T_A=25$

Drain Current



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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}	$V_{GS}=0V, I_D=-$	-60	-	-	V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-60V, V_{GS}=0V$	-	-	-1	
		$V_{DS}=-60V, V_{GS}=0V, T_J=150^\circ C$	-	-	-100	
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 18V, V_{DS}=0V$	-	-	± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-$	-2	-2.6	-3.5	V



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Typical Electrical and Thermal Characteristics Diagrams

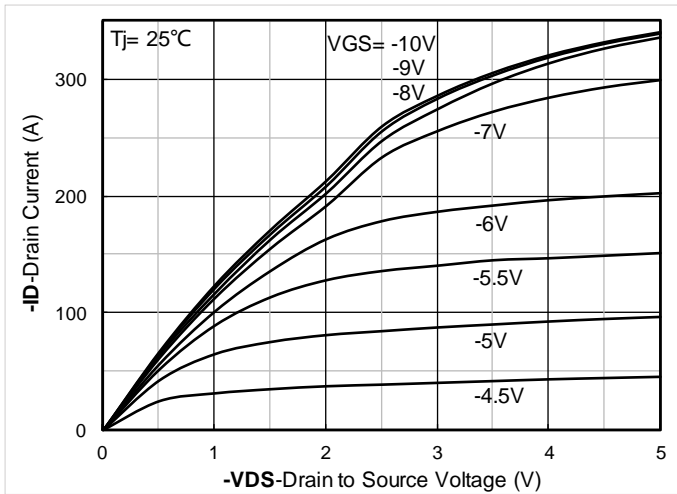


Figure 1. Output Characteristics

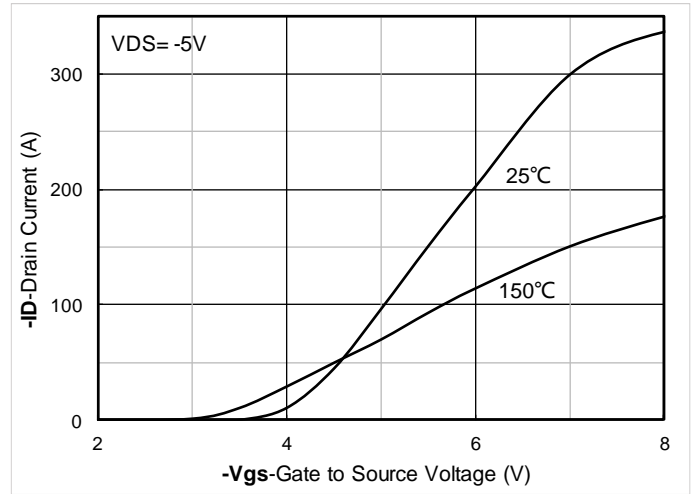


Figure 2. Transfer Characteristics

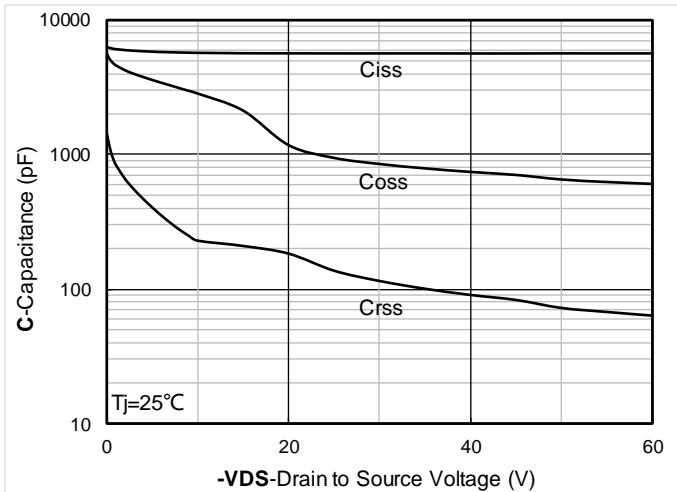


Figure 3. Capacitance Characteristics

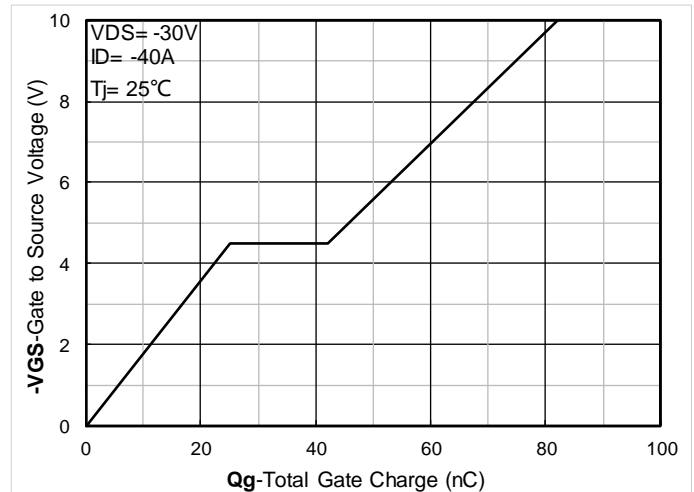


Figure 4. Gate Charge

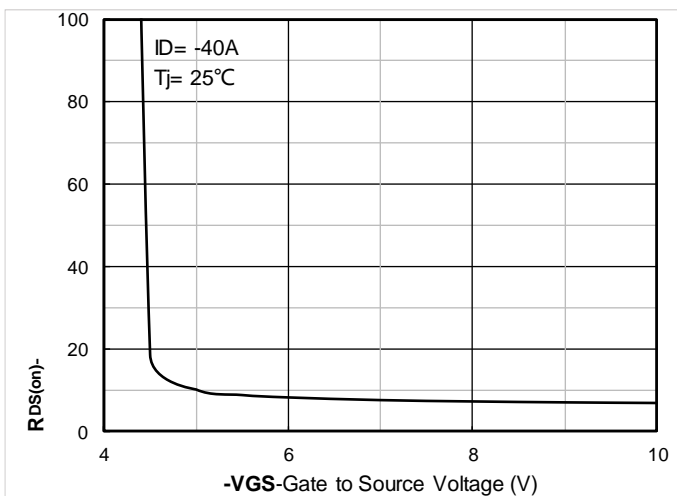


Figure 5. On-Resistance vs Gate to Source Voltage

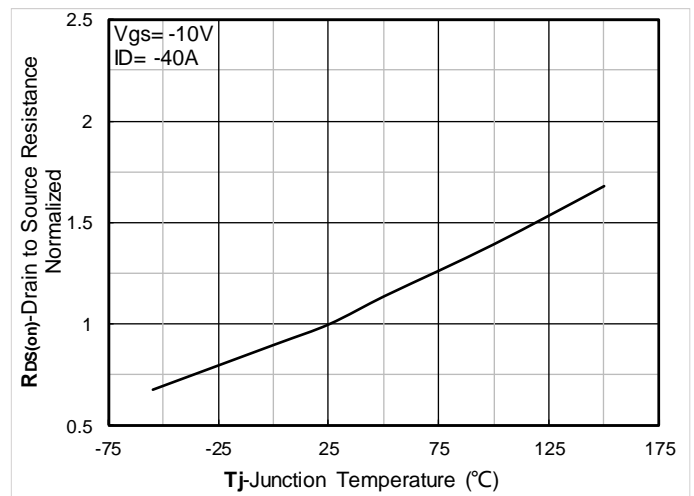


Figure 6. Normalized On-Resistance



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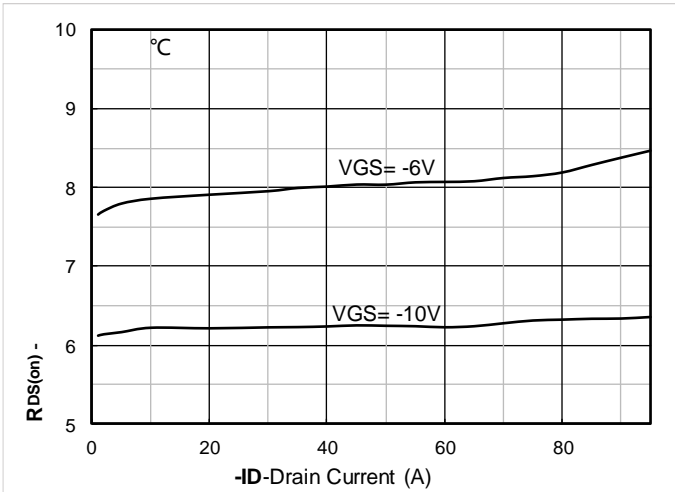


Figure 7. $R_{DS(on)}$ VS Drain Current

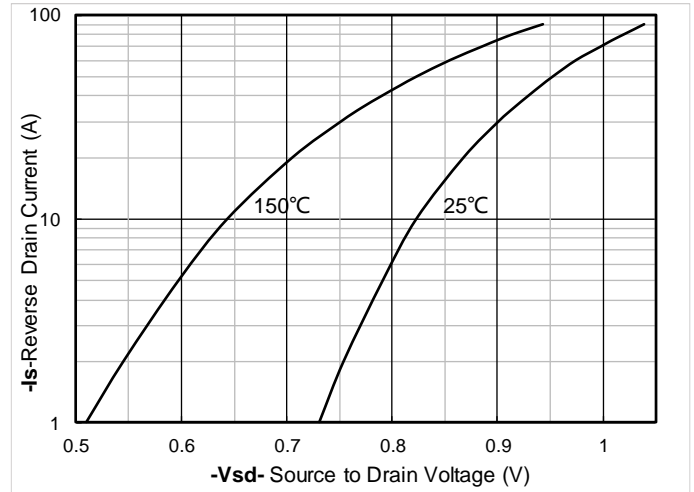


Figure 8. Forward characteristics of reverse diode

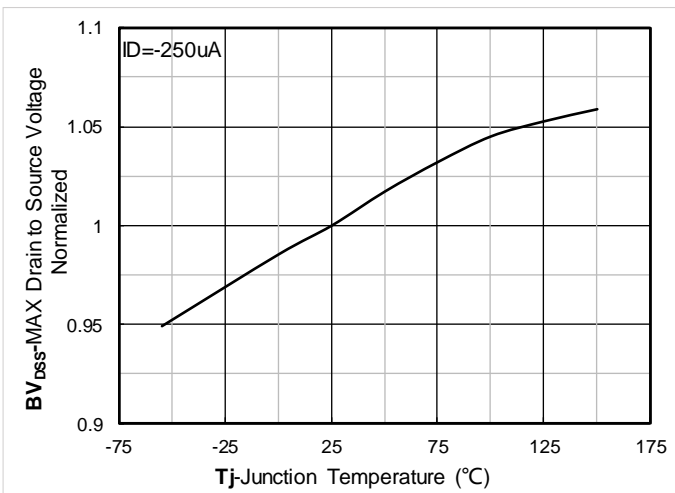


Figure 9. Normalized breakdown voltage

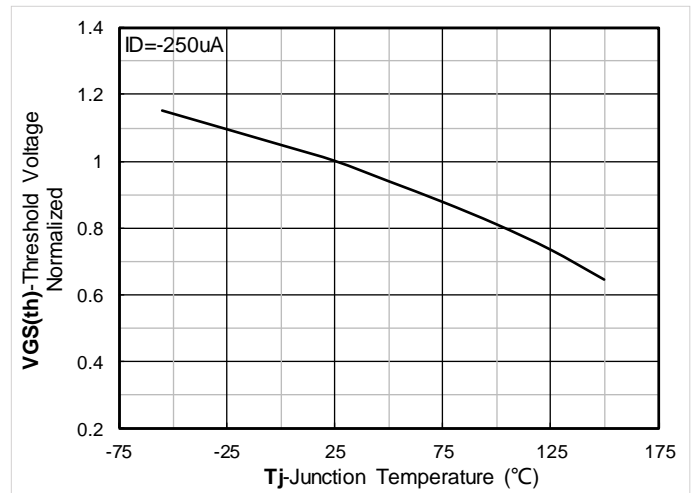


Figure 10. Normalized Threshold voltage

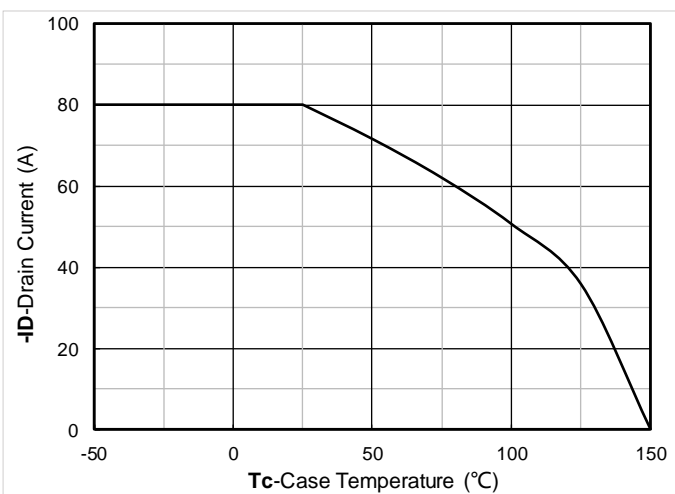


Figure 11. Current dissipation

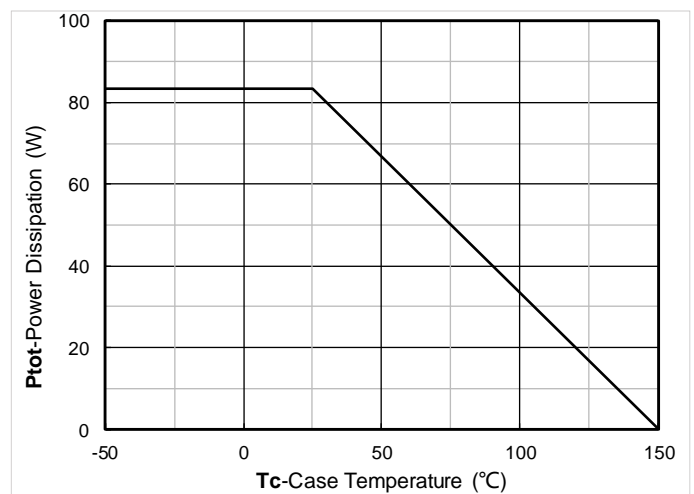


Figure 12. Power dissipation



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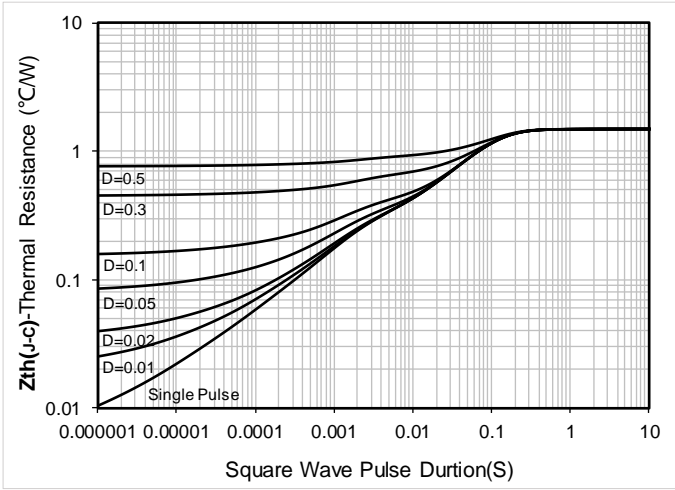


Figure 13. Maximum Transient Thermal Impedance

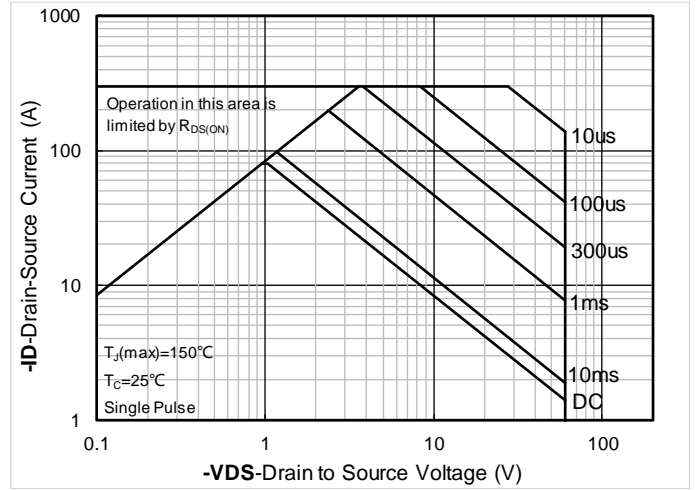
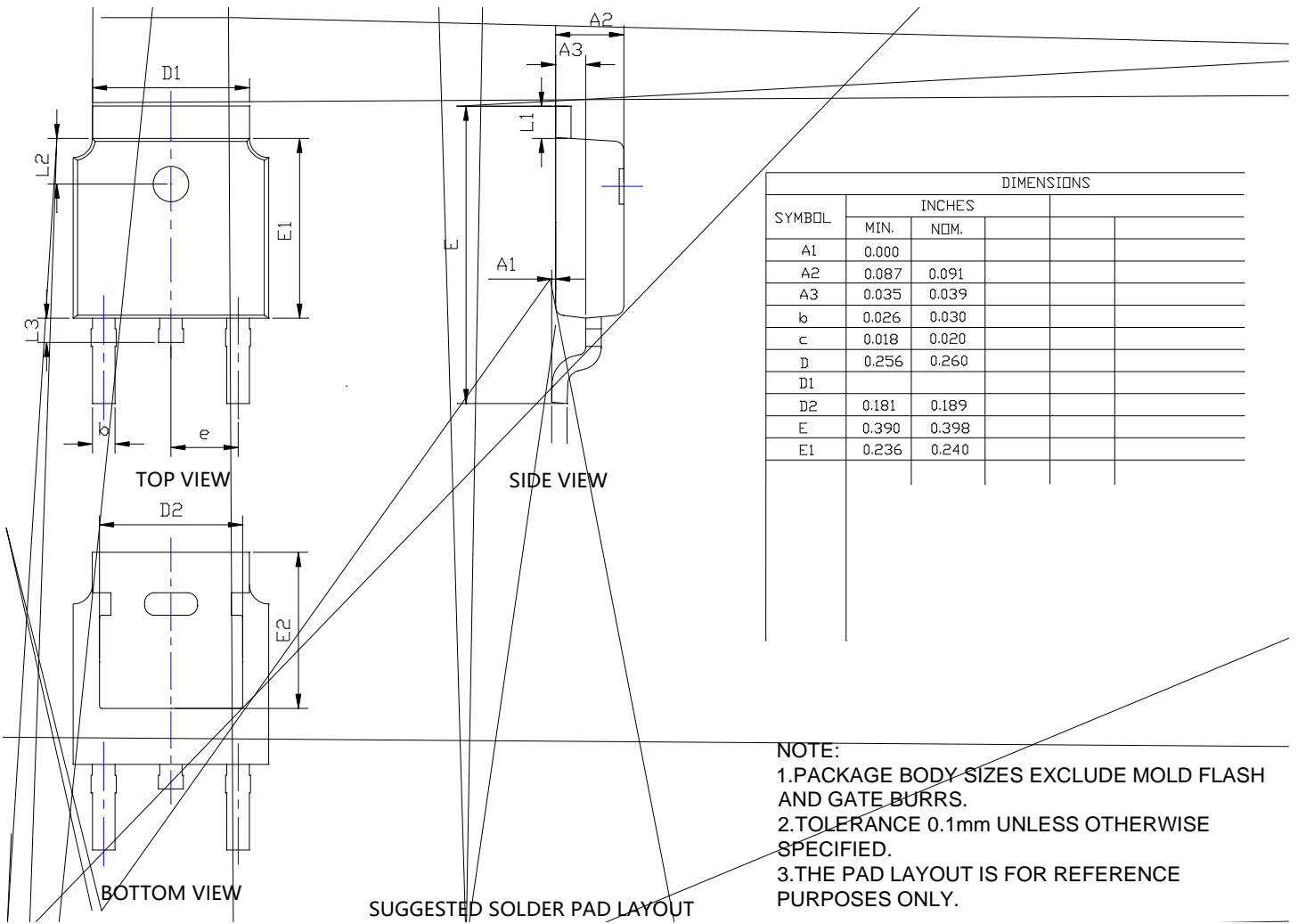


Figure 14. Safe Operation Area



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TO-252-B Package information





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