

Source-Drain Diode

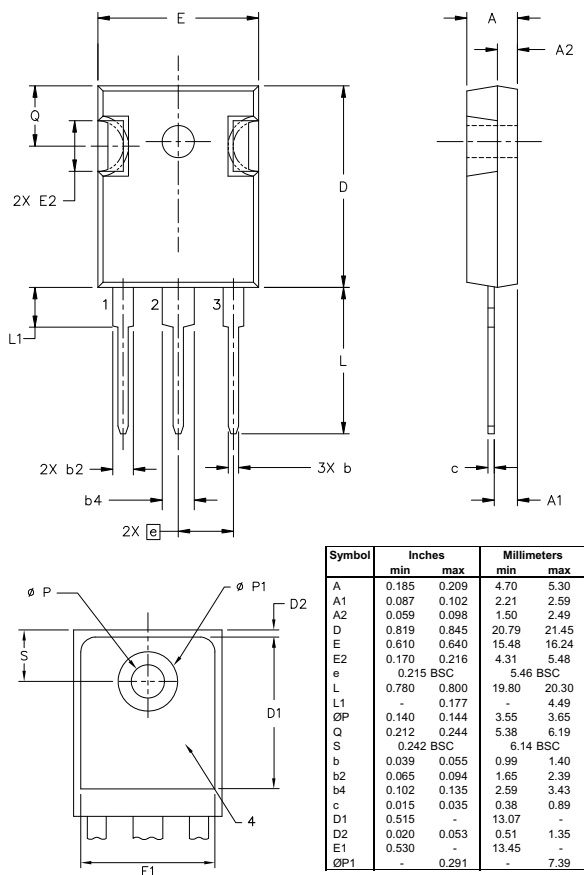
Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
I_S	$V_{GS} = 0\text{ V}$			A
V_{SD}	$I_F = 40\text{ A}; V_{GS} = 0\text{ V}$			V
t_{rr} Q_{RM} I_{RM}	$I_F = 40\text{ A}; -di_F/dt = 100\text{ A}/\mu\text{s}; V_R = 640\text{ V}$			ns μC A

($T_{VJ} = 25^\circ\text{C}$, unless otherwise specified)

Component

Symbol	Conditions	Maximum Ratings	
T_{VJ}	operating	-55...+150	$^\circ\text{C}$
T_{stg}		-55...+150	$^\circ\text{C}$
M_d	mounting torque	1.13	Nm

Symbol	Conditions	Characteristic Values		
		min.	typ.	max.
R_{thCH}	with heatsink compound		tbd	K/W
Weight			2.7	g

TO-247 Outline


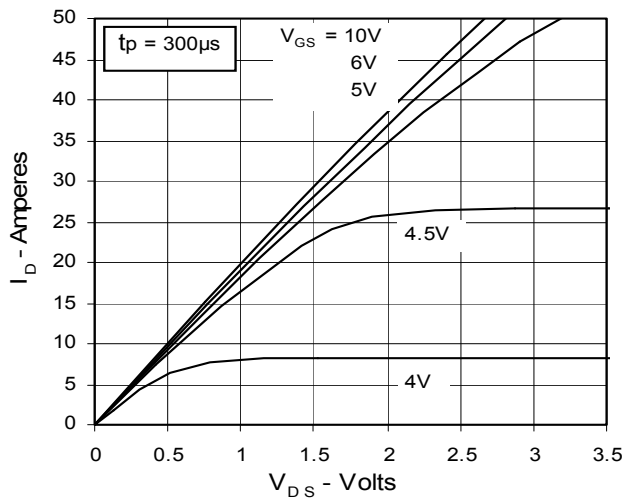
IXYS reserves the right to change limits, test conditions and dimensions.

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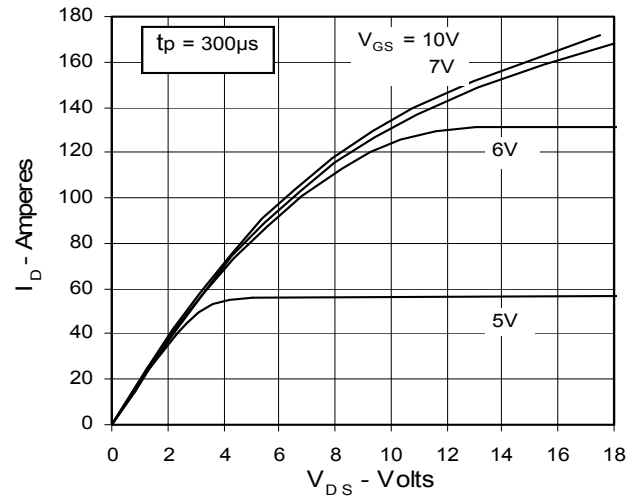
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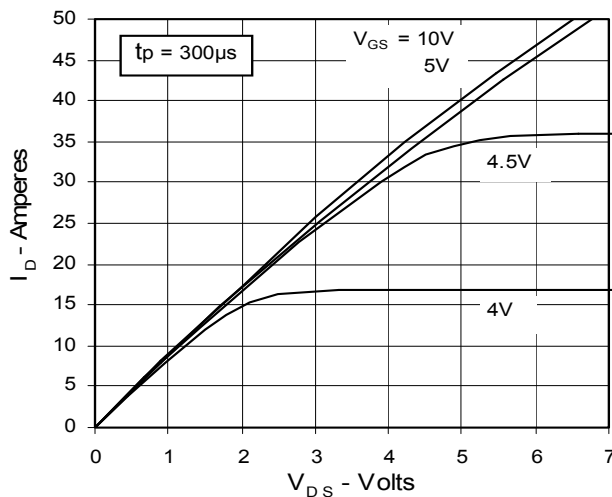
**Fig. 1. Output Characteristics
@ 25 Deg. C**



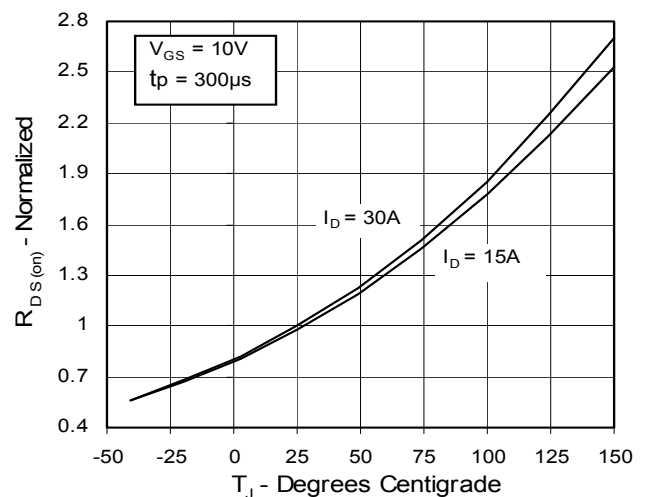
**Fig. 2. Extended Output Characteristics
@ 25 deg. C**



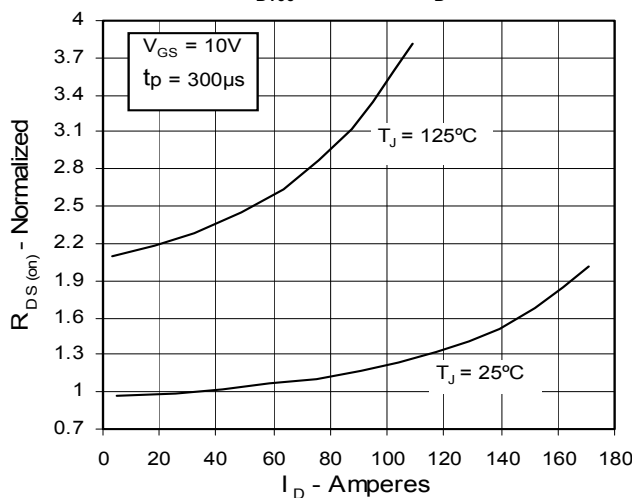
**Fig. 3. Output Characteristics
@ 125 Deg. C**



**Fig. 4. $R_{DS(on)}$ Normalized to I_{D100} Value
vs. Junction Temperature**



**Fig. 5. $R_{DS(on)}$ Normalized to
 I_{D100} Value vs. I_D**



**Fig. 6. Drain Current vs. Case
Temperature**

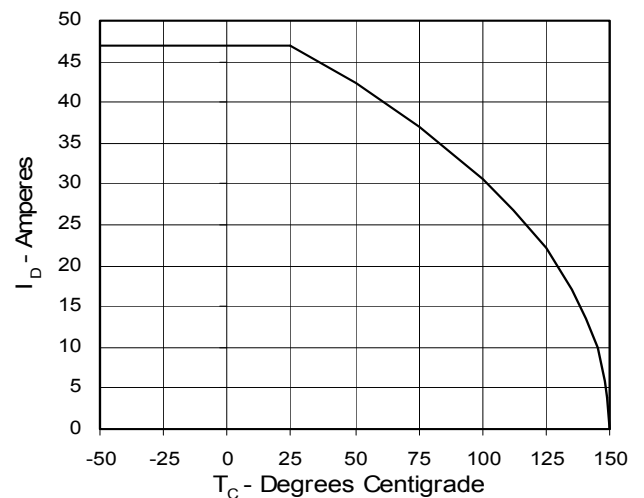


Fig. 7. Input Admittance

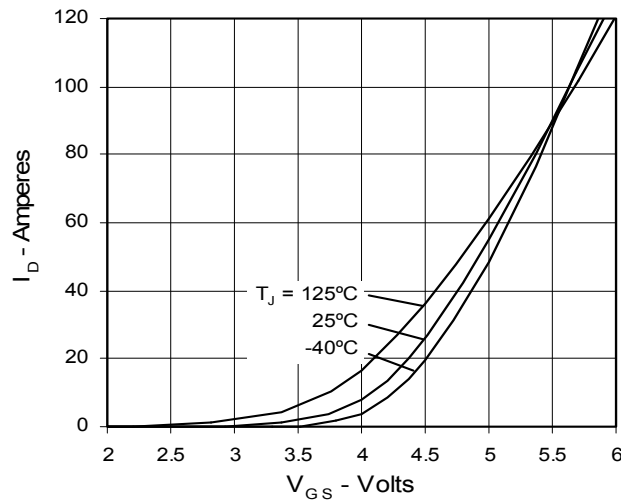


Fig. 8. Transconductance

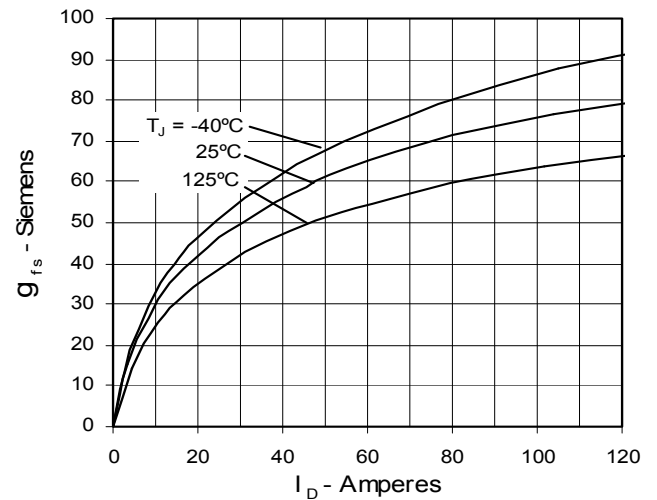


Fig. 9. Source Current vs. Source-To-Drain Voltage

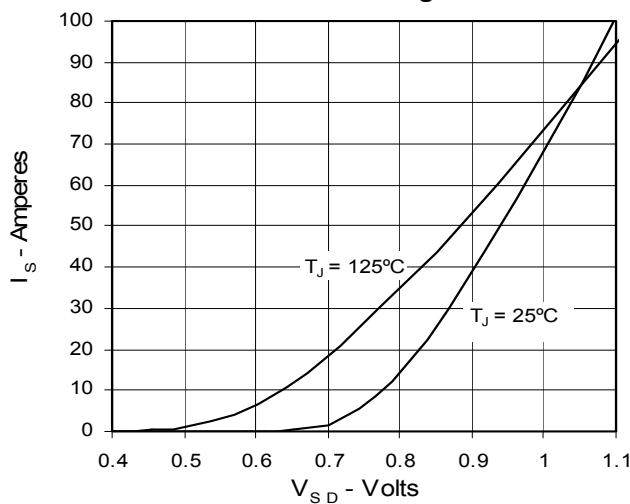


Fig. 10. Gate Charge

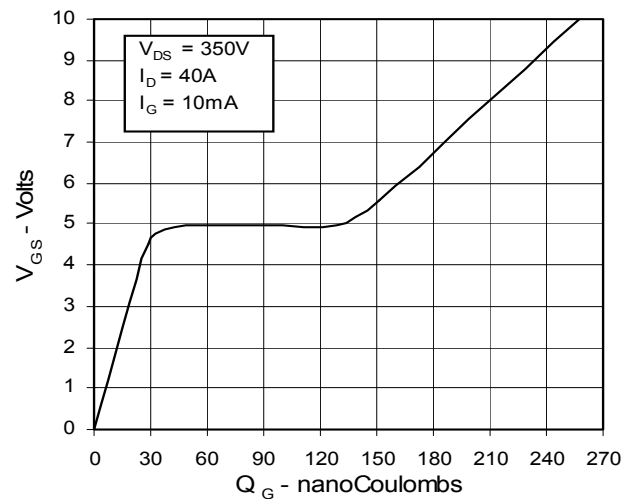


Fig. 11. Capacitance

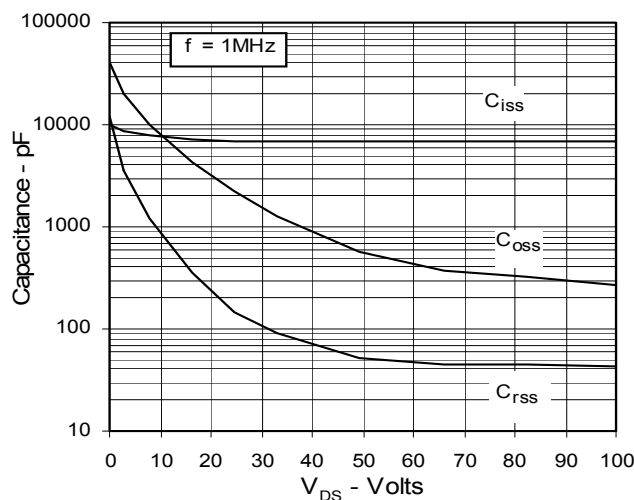
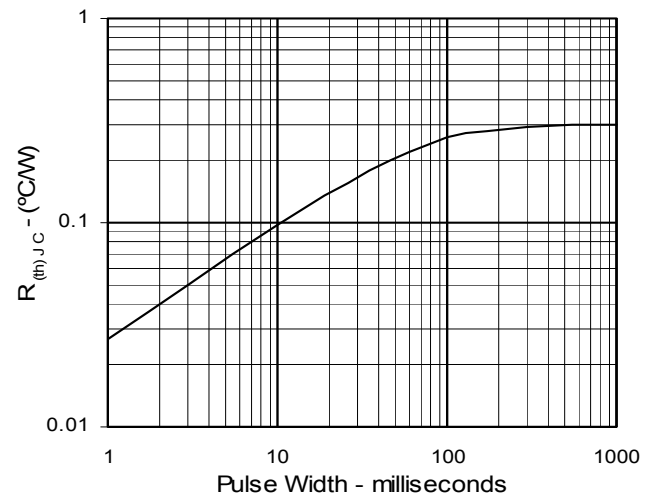


Fig. 12. Maximum Transient Thermal Resistance





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