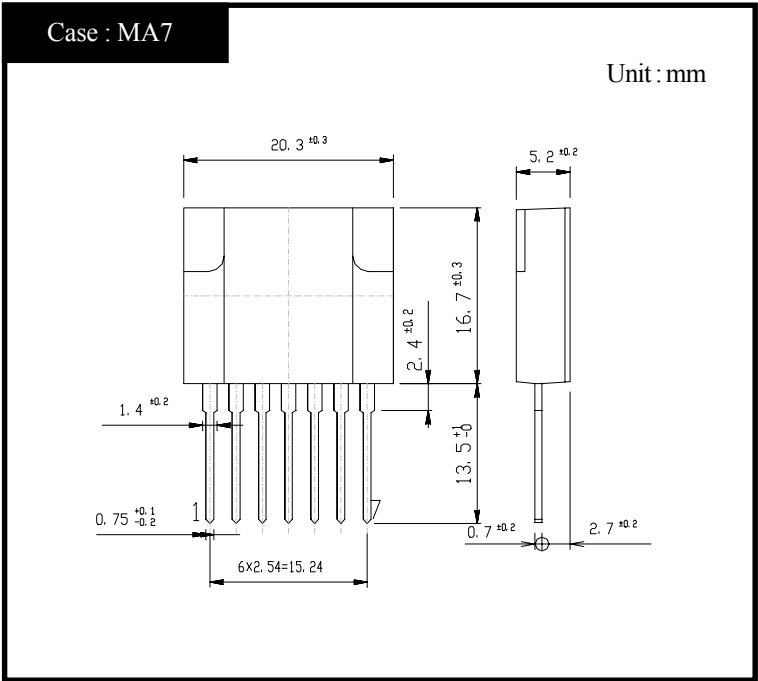


MA4820

OUTLINE DIMENSIONS



RATINGS

●Absolute Maximum Ratings

Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	Tstg		-30~125	°C
Operating Temperature	Top		-20~125	°C
Junction Temperature	Tj		150	°C
Peak Input Voltage	Vin	②+,③-,⑤-	800	V
Input Current	Iin	DC ②+,③-	5	A
Maximum Power Dissipation	P _D	Pulse ②+,③- Duty1/2	10	A
	P _D	Ta=25°C	3	W
	P _D	Heatsink Tc=100°C	21	W
Dielectric Strength	Vdis	Terminals To Case AC 1 min	2	kV
Insulation Resistance		Terminals To Case 500VDC	100	MΩ
Max Voltage ④ to ⑥	V④•⑥	④+,⑥-	6	V
Max Current ⑥ to ④	I⑥•④	⑥+,④- (Peak) Duty Max 1/2	200	mA
Reverse Current	I _Z	⑤+,④-	MAX 20	mA

●Electrical Characteristics (Tc=25°C)

Item	Symbol	Conditions	Ratings	Unit
Q1	Zero Gate Voltage Dreain Current	I _{DSS} V _{DS} =800V, V _{GS} =0V,②+,③-	MAX 250	μ A
	Static Drain-Source On-State Resistance	R _{DS(on)} I _D =2.5A, ②+,③- V _{GS} =10V,⑤+,③-	TYP (2.1)	Ω
	Thermal Resistance	θ _{jc} Junction to Case	MAX 2.3	°C/W
	Reverse Current	I _R V _S =800V, ①+,②-	MAX 10	μ A
D1	Forward Voltage	V _F I _F =0.6A, ②+,①-	MAX 1.7	V
	Fold Back Detection Voltage	③+,④-	TYP 0.7	V

●Standard Operating Condition•Design Standard For Application Circuit

Item	Conditions	Ratings	Unit
Input Rated Voltage		AC90~276	V
Output Nominal Voltage		12	V
Output Nominal Current		4	A

●Standard Operating Condition•Standard Operating Characteristics (Ta=25°C)

Standard Operating Condition: Standard Operating Characteristics (Ta=25°C)					
Item		Conditions	Ratings	Unit	
Minimum Input Full Load Output Voltage		Vin=90V, IO=4.0A	12.0±0.6	V	Fig 1, ① Refer
Maximum Input Light Load Output Voltage		Vin=276V, IO=0.40A	12.0±0.6	V	Fig 1, ② Refer
Over Current Protection	Foldback Current	Vin=276V, VO=10V	MAX 6.0	A	Fig 1, ③ Refer
	Short Circuit	Vin=276V, RO=0.5Ω	Nodamage To Any Device, Automatic Recovery.	-	Fig 1, ④ Refer

Figure in ○=Terminal Sign

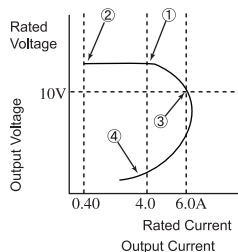
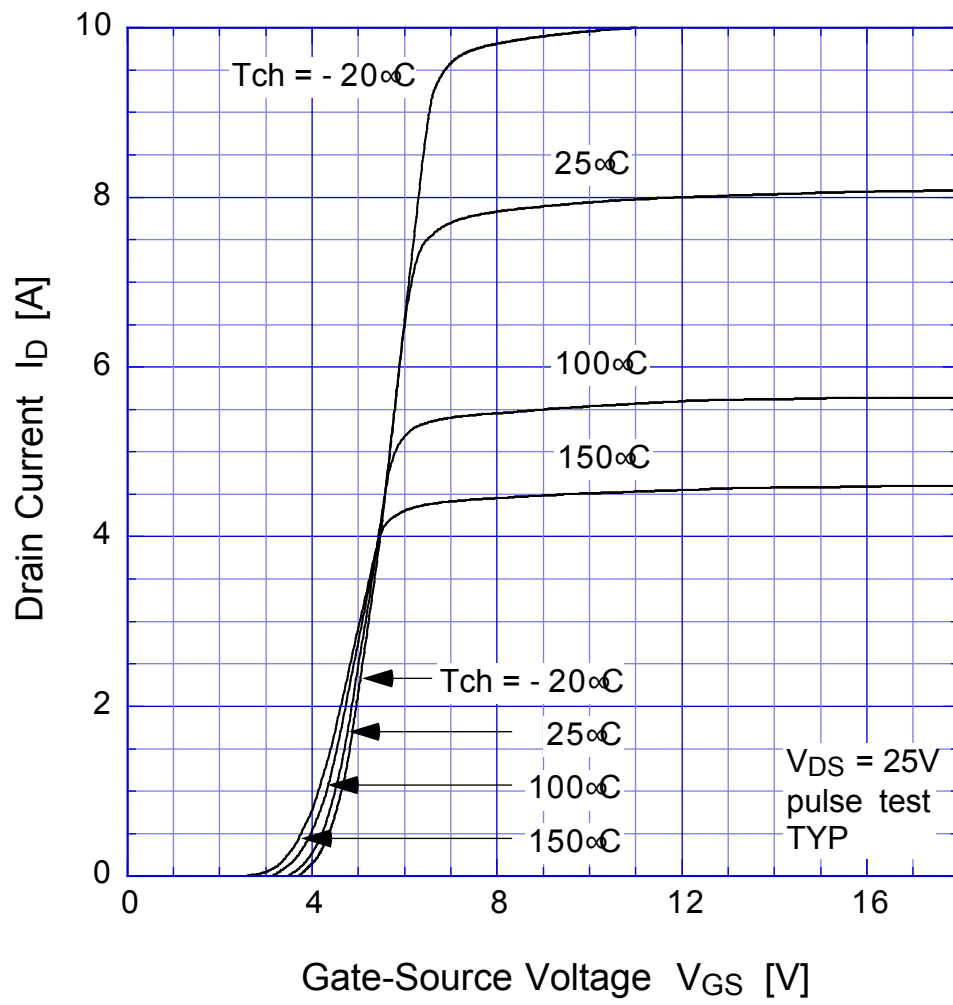


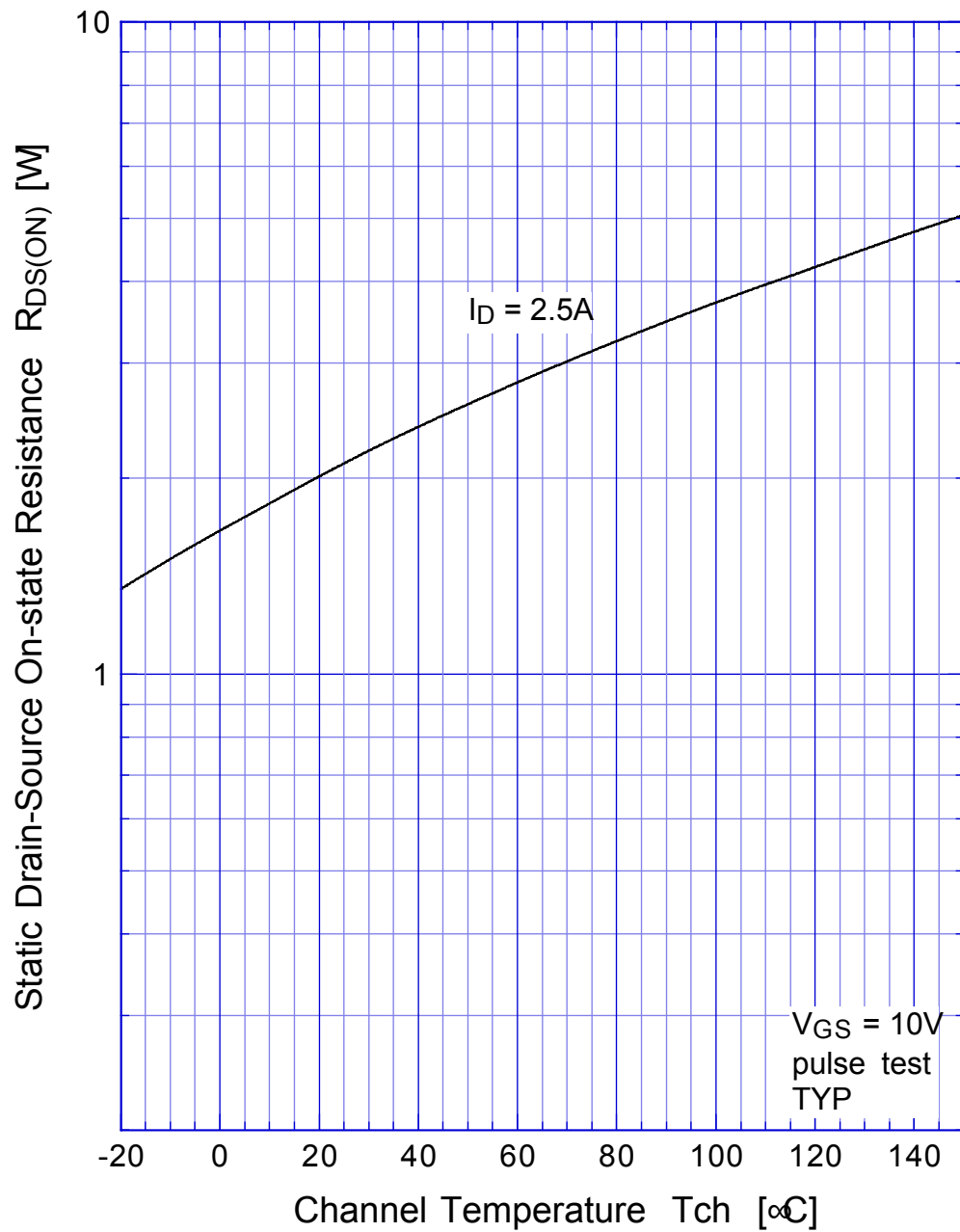
Fig1. Output Voltage/Current

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Transfer Characteristics

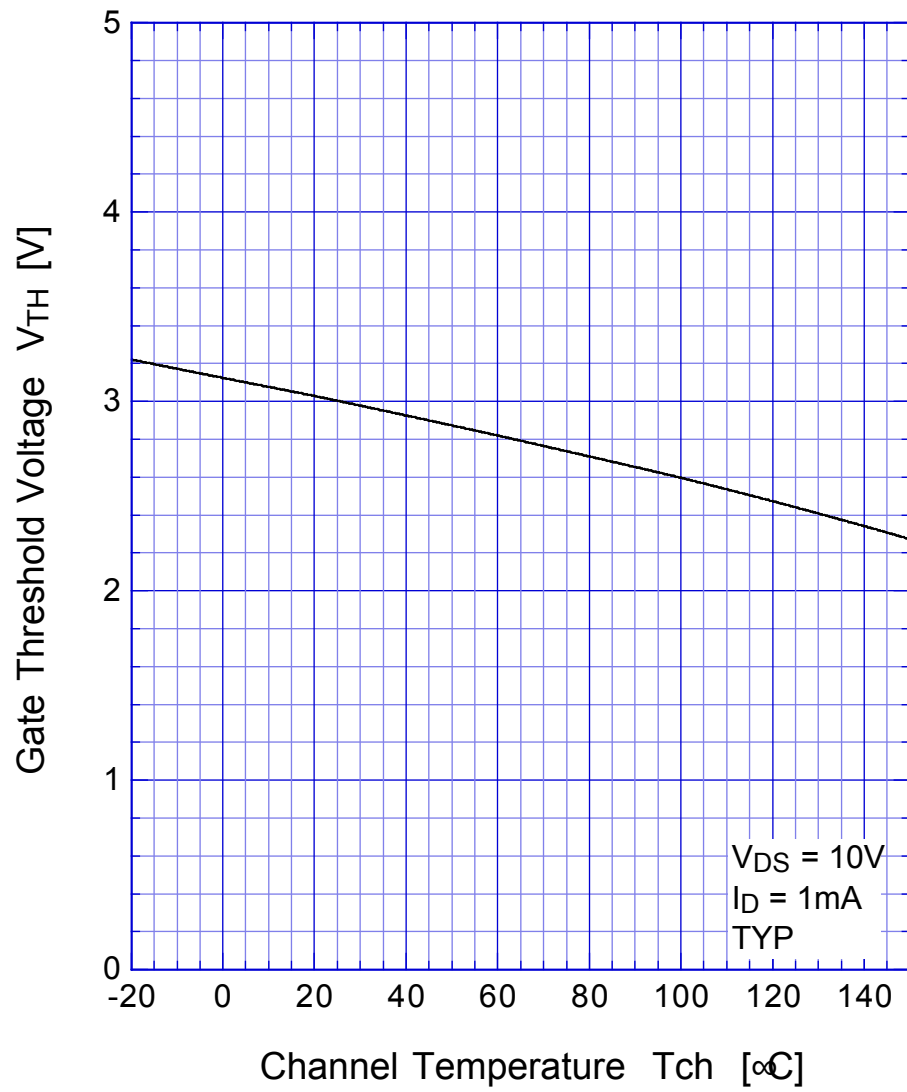


MA4820 Static Drain-Source On-state Resistance



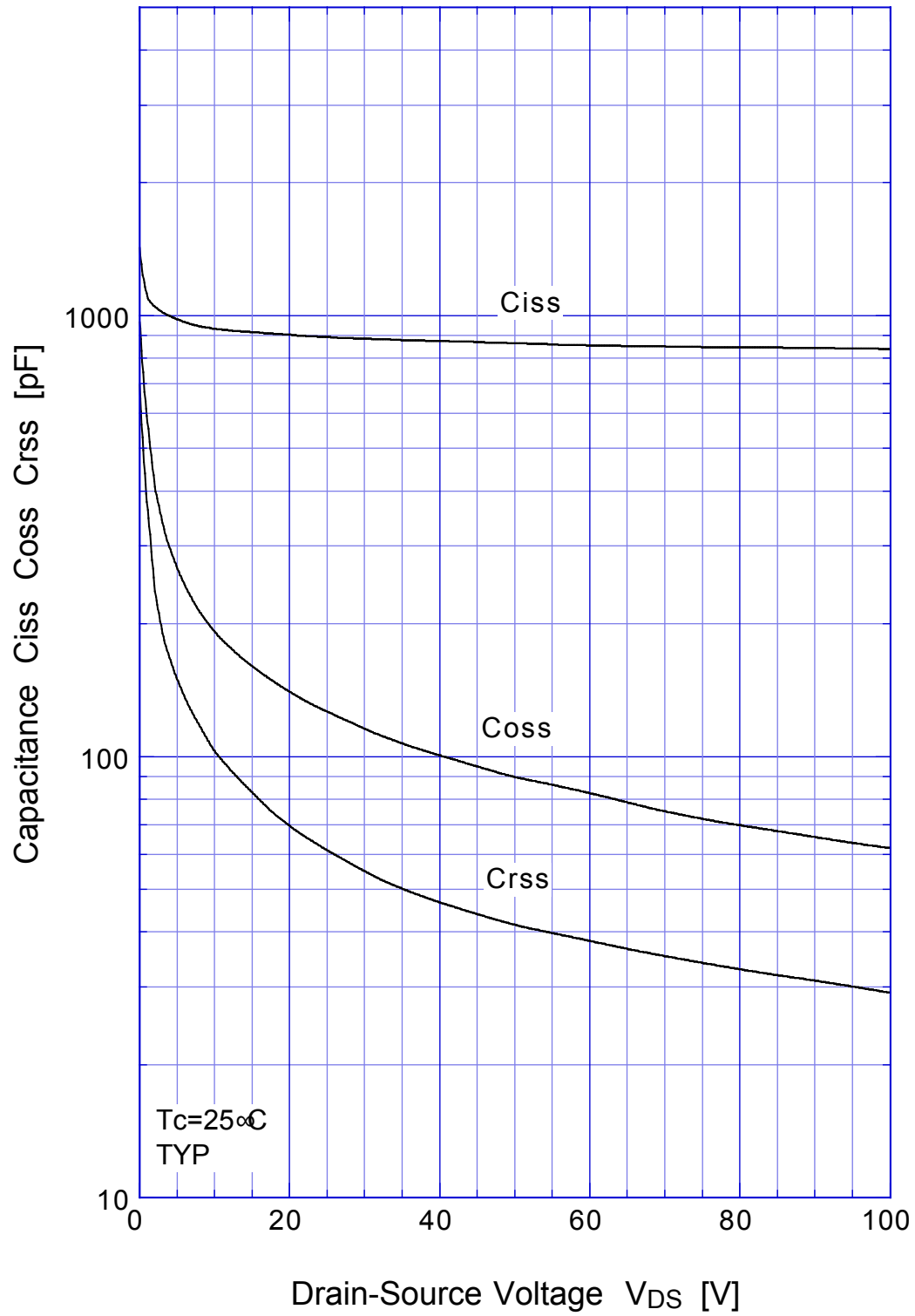
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Gate Threshold Voltage

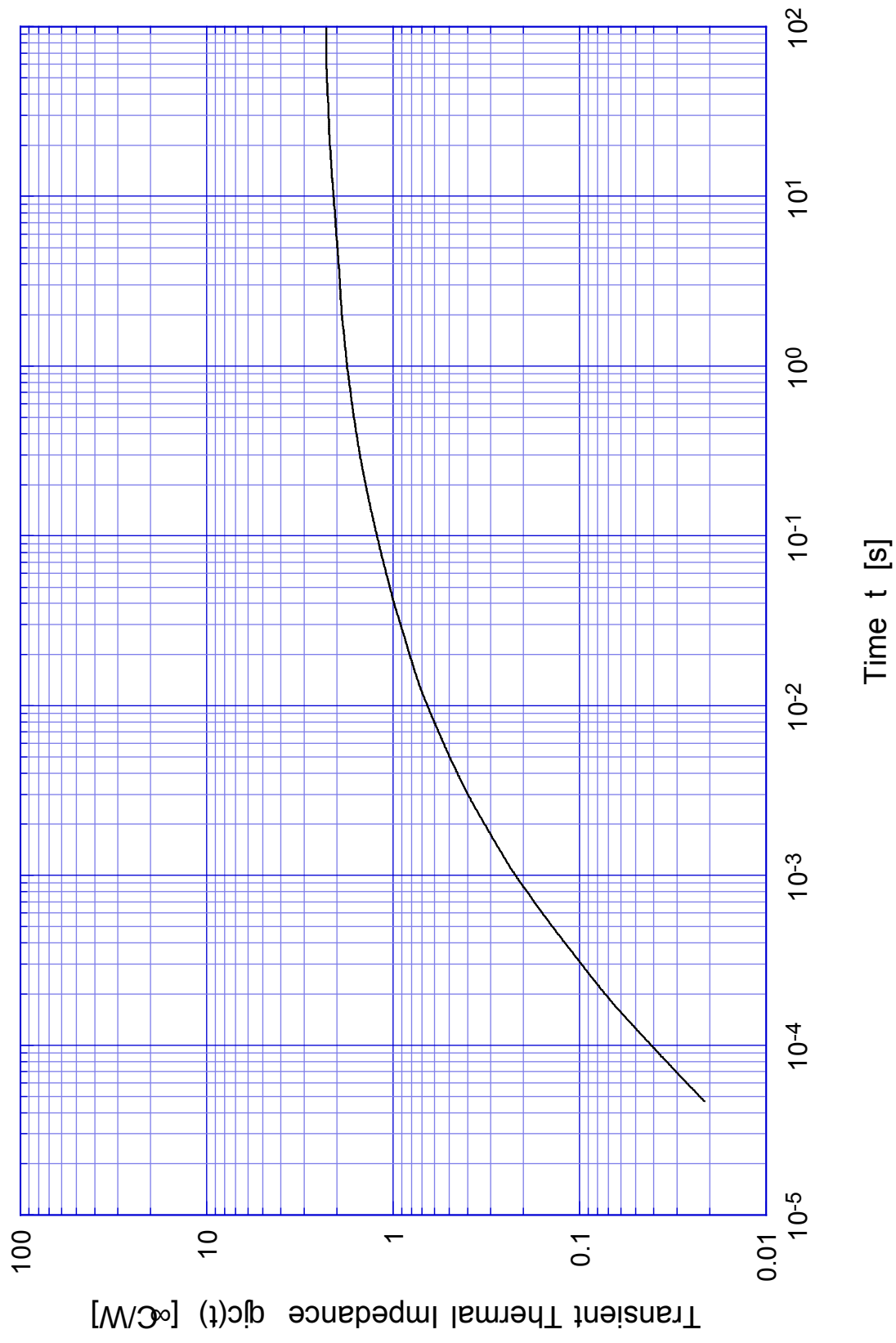


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Capacitance

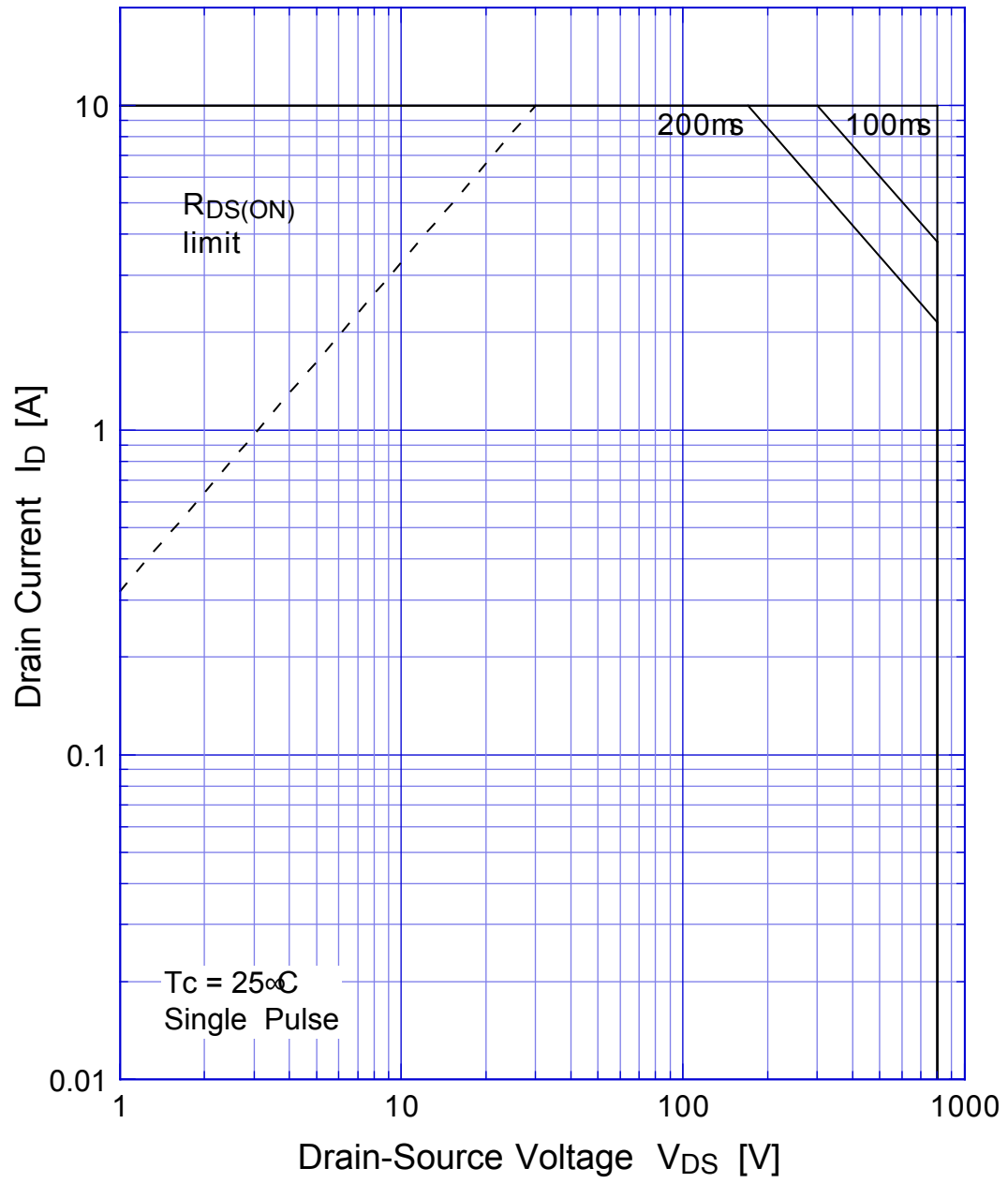


MA4820 Transient Thermal Impedance



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Safe Operating Area



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Power Derating

