

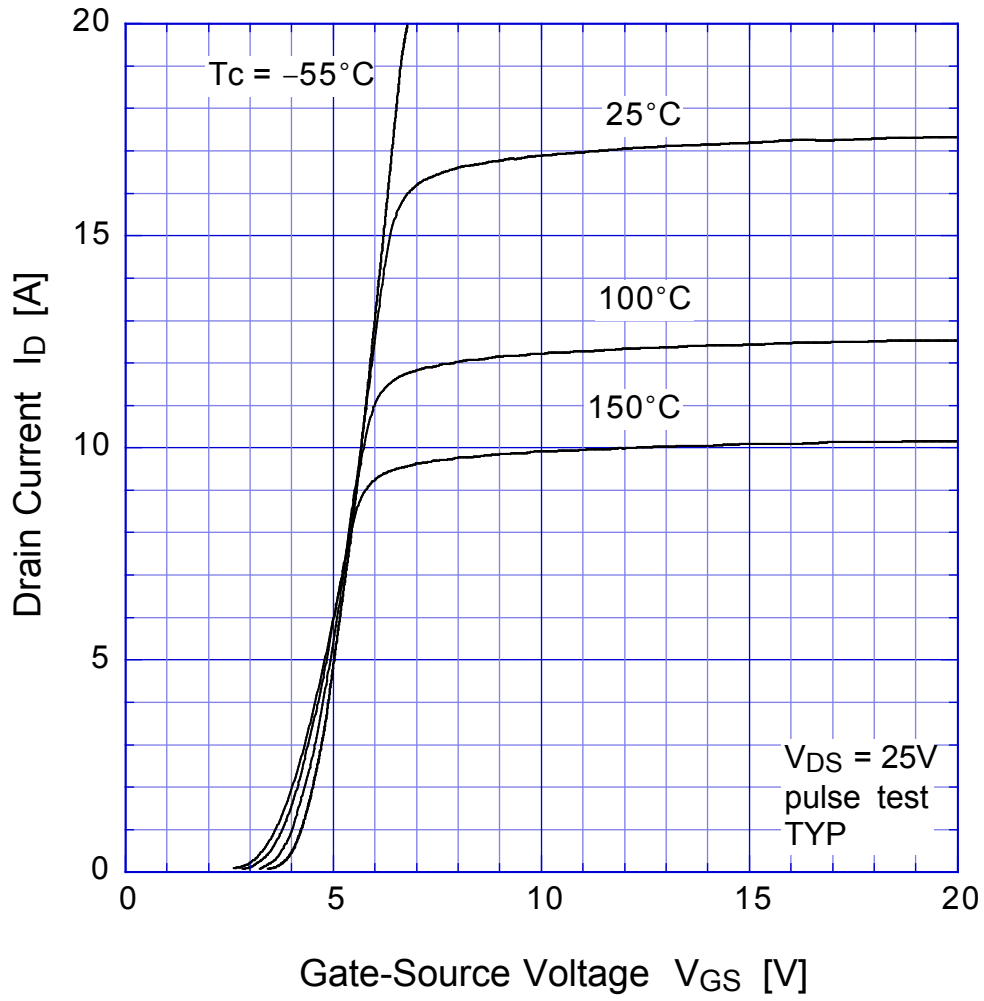


● Electrical Characteristics  $T_c = 25^\circ\text{C}$

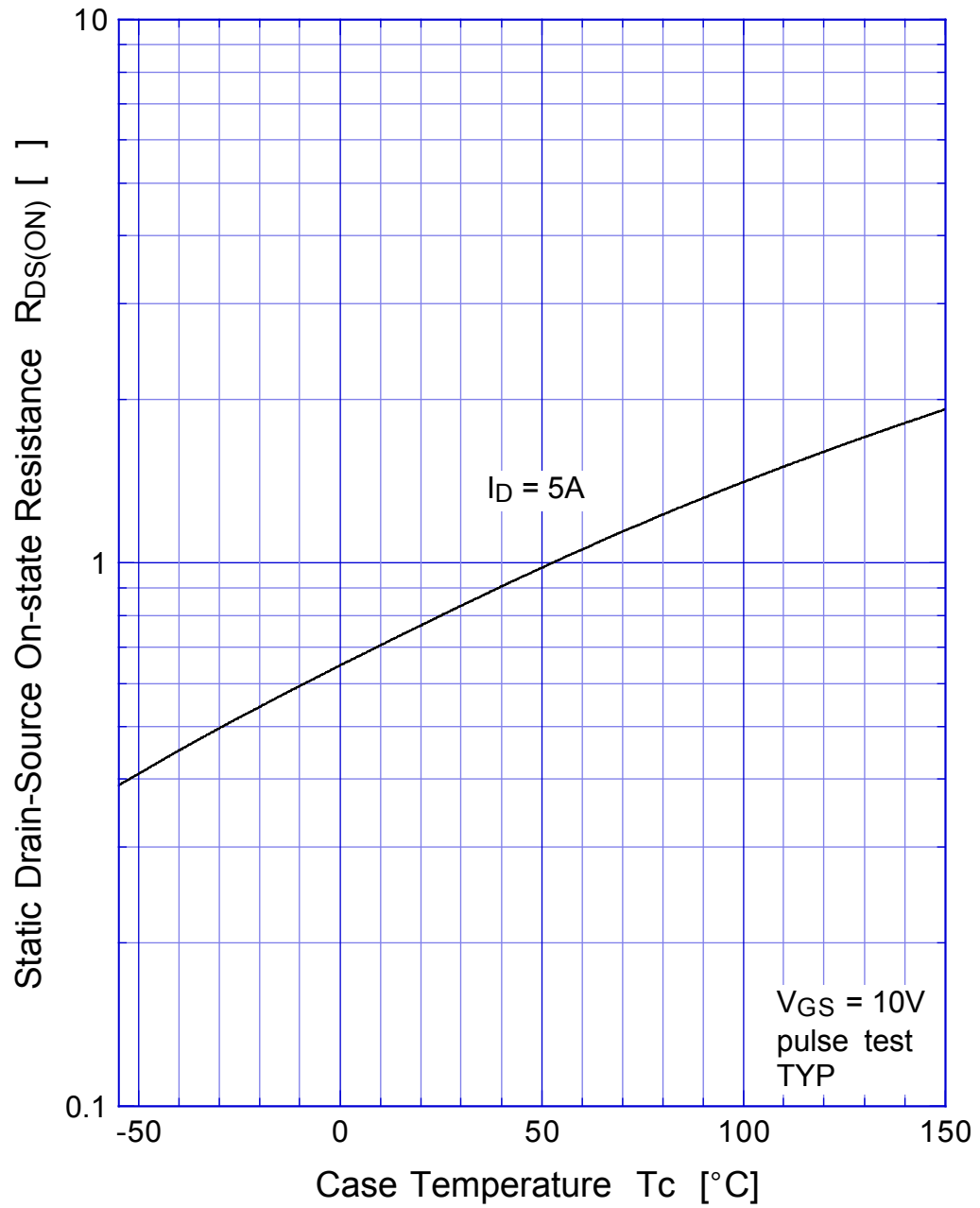
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0\text{V}$	500			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 500\text{V}, V_{GS} = 0\text{V}$			250	$\mu\text{A}$
Gate-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30\text{V}, V_{DS} = 0\text{V}$			$\pm 0.1$	
Forward Transconductance	$g_{fs}$	$I_D = 5\text{A}, V_{DS} = 10\text{V}$	2.4	6.3		S
Static Drain-Source On-state Resistance	$R_{DS(ON)}$	$I_D = 5\text{A}, V_{GS} = 10\text{V}$		0.8	1.0	$\Omega$
Gate Threshold Voltage	$V_{TH}$	$I_D = 1\text{mA}, V_{DS} = 10\text{V}$	2.5	3.0	3.5	V
Source-Drain Diode Forward Voltage	$V_{SD}$	$I_S = 5\text{A}, V_{GS} = 0\text{V}$			1.5	
Thermal Resistance	$\theta_{jc}$	junction to case			3.12	$^\circ\text{C}/\text{W}$
Total Gate Charge	$Q_g$	$V_{DD} = 400\text{V}, V_{GS} = 10\text{V}, I_D = 10\text{A}$		30		nC
Input Capacitance	$C_{iss}$	$V_{DS} = 10\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$		890		pF
Reverse Transfer Capacitance	$C_{rss}$			70		
Output Capacitance	$C_{oss}$			200		
Turn-On Time	$t_{on}$	$I_D = 5\text{A}, V_{GS} = 10\text{V}, R_L = 30\Omega$		70	110	ns
Turn-Off Time	$t_{off}$	$V_{GS} = 0\text{V}$		140	220	

# 2SK2188

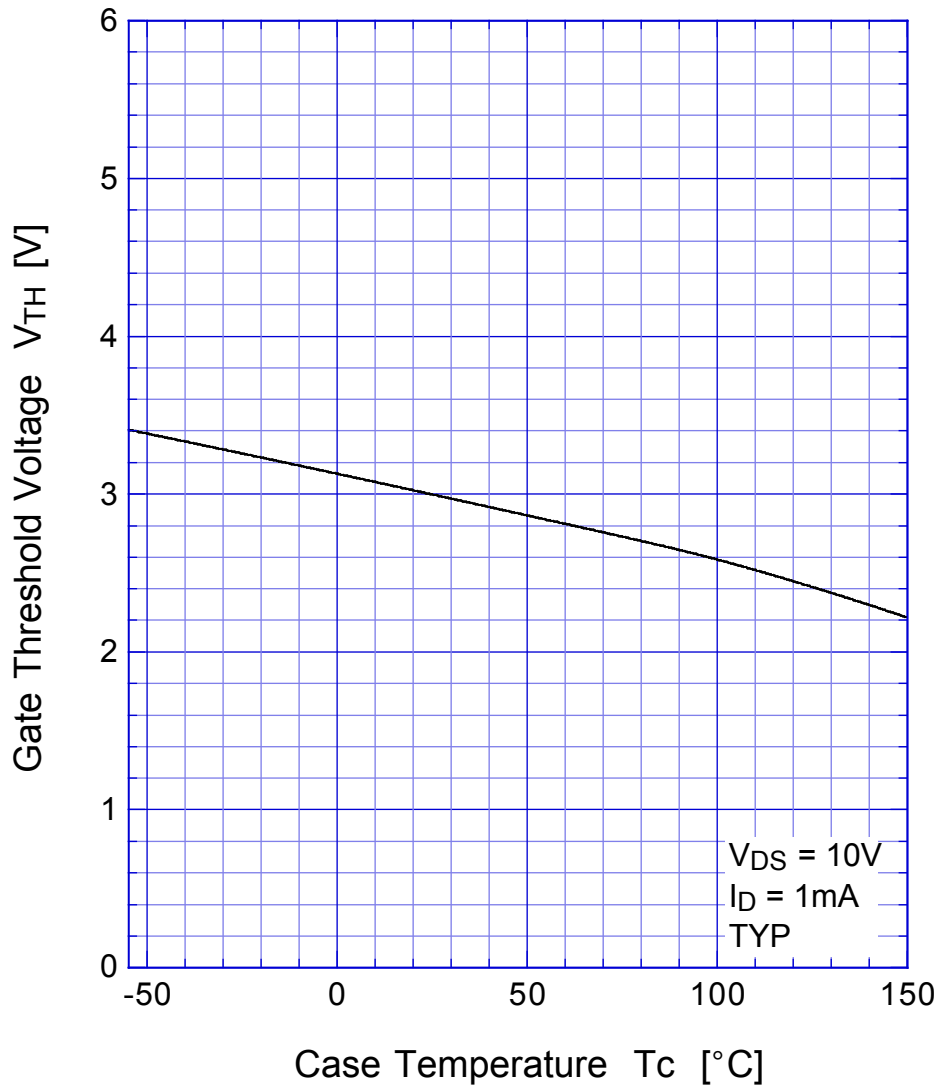
## Transfer Characteristics



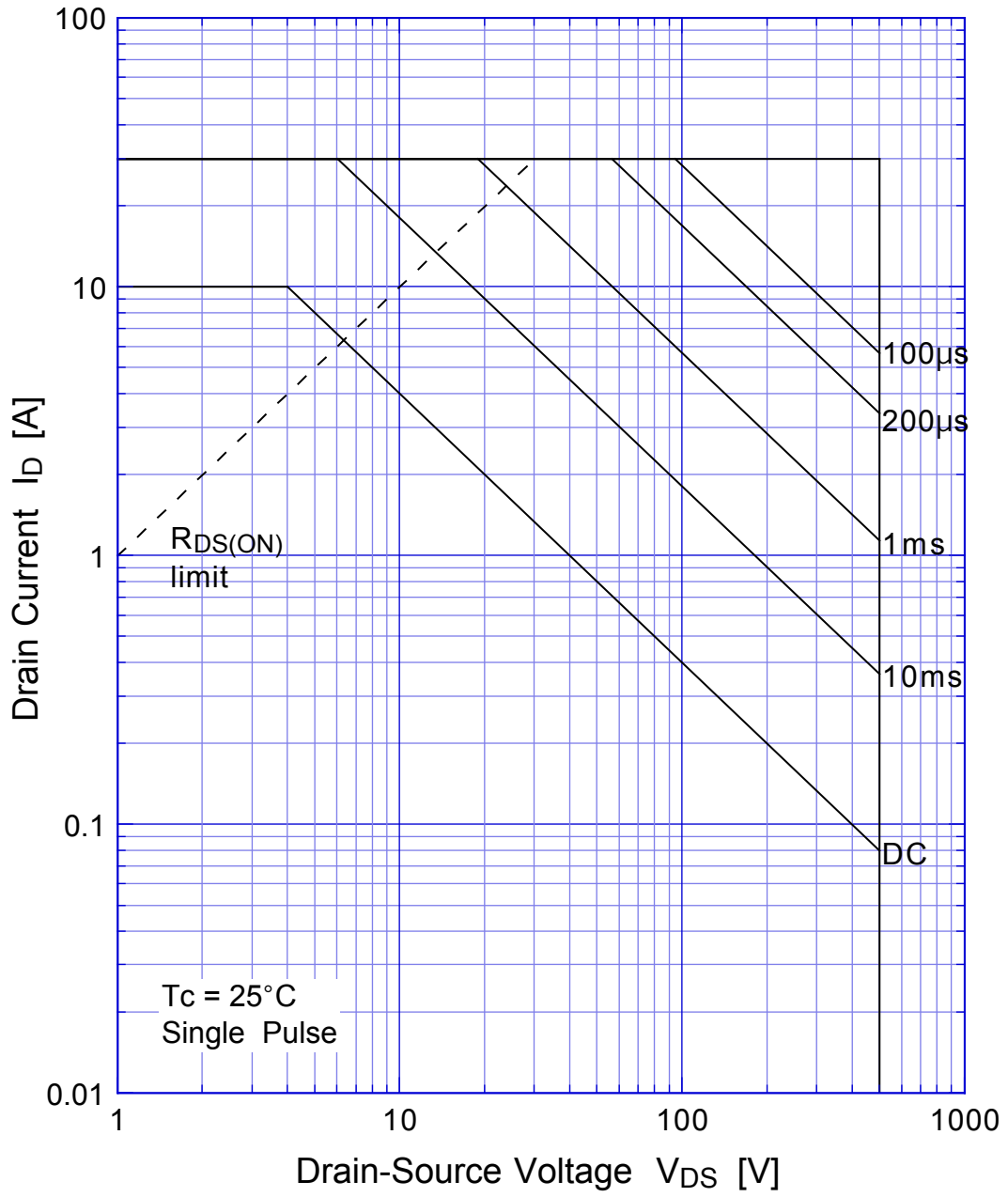
## 2SK2188 Static Drain-Source On-state Resistance



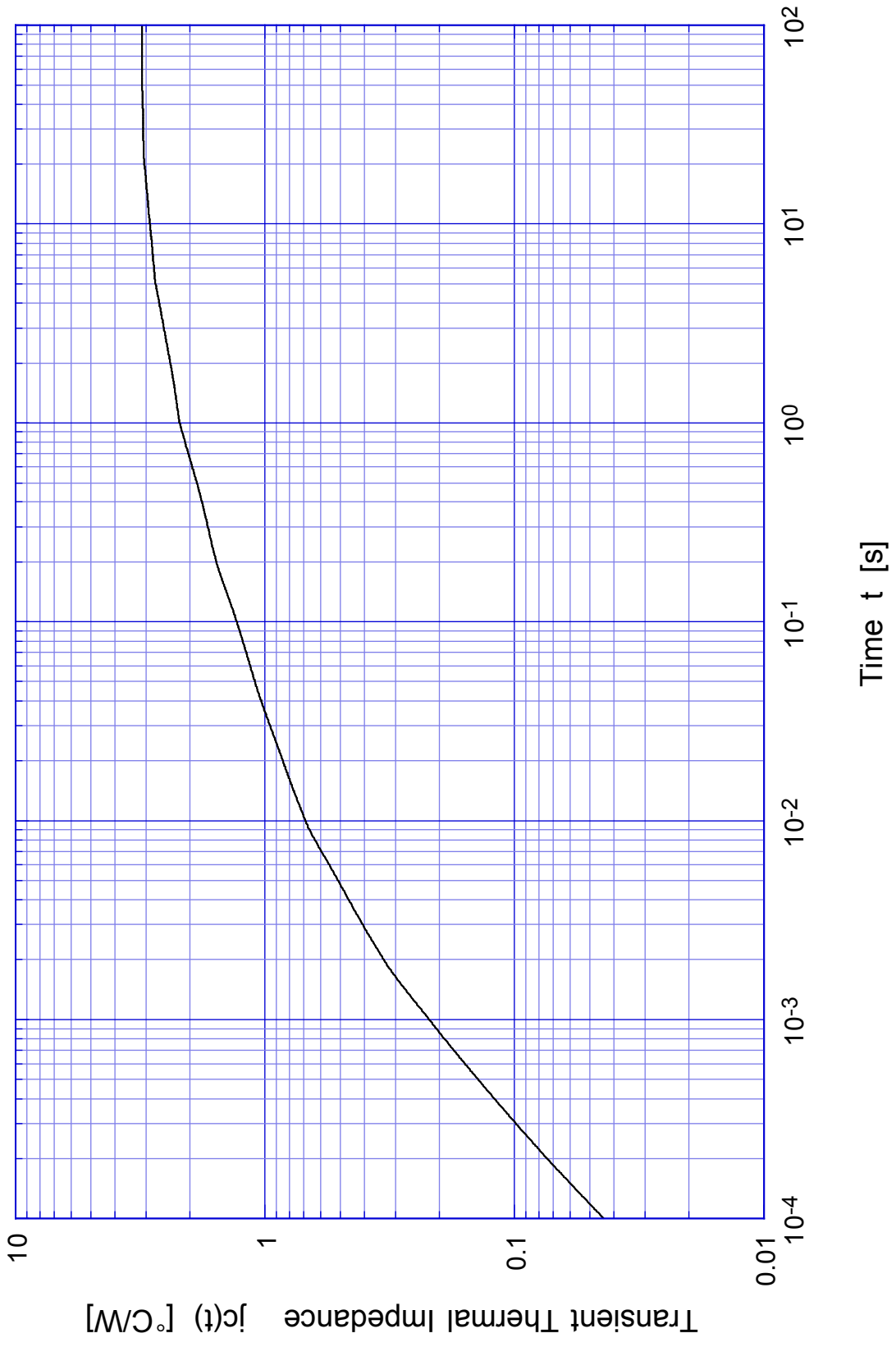
## 2SK2188 Gate Threshold Voltage



# 2SK2188 Safe Operating Area

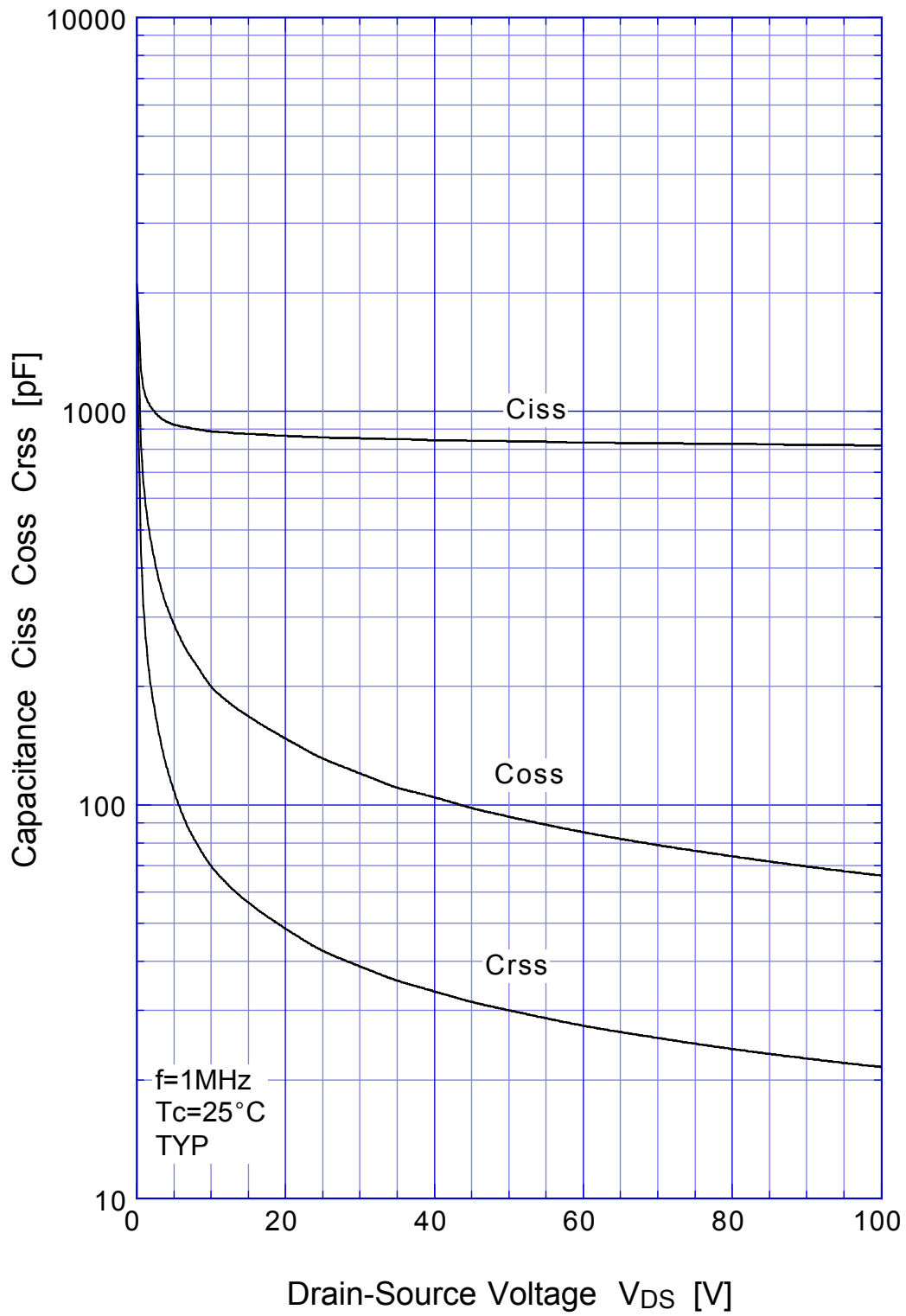


# 2SK2188 Transient Thermal Impedance



# 2SK2188

## Capacitance





2SK2188

Power Derating



## 2SK2188 Gate Charge Characteristics

