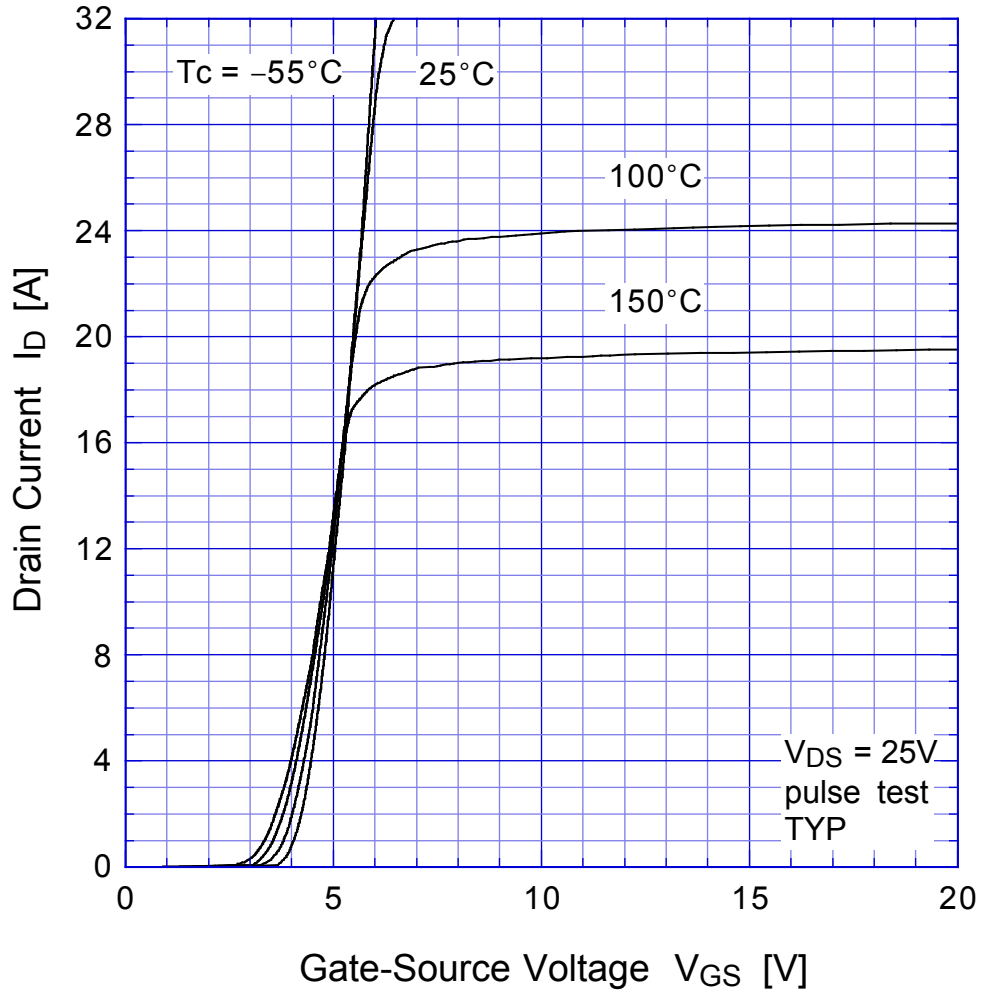


●Electrical Characteristics $T_c = 25^\circ\text{C}$

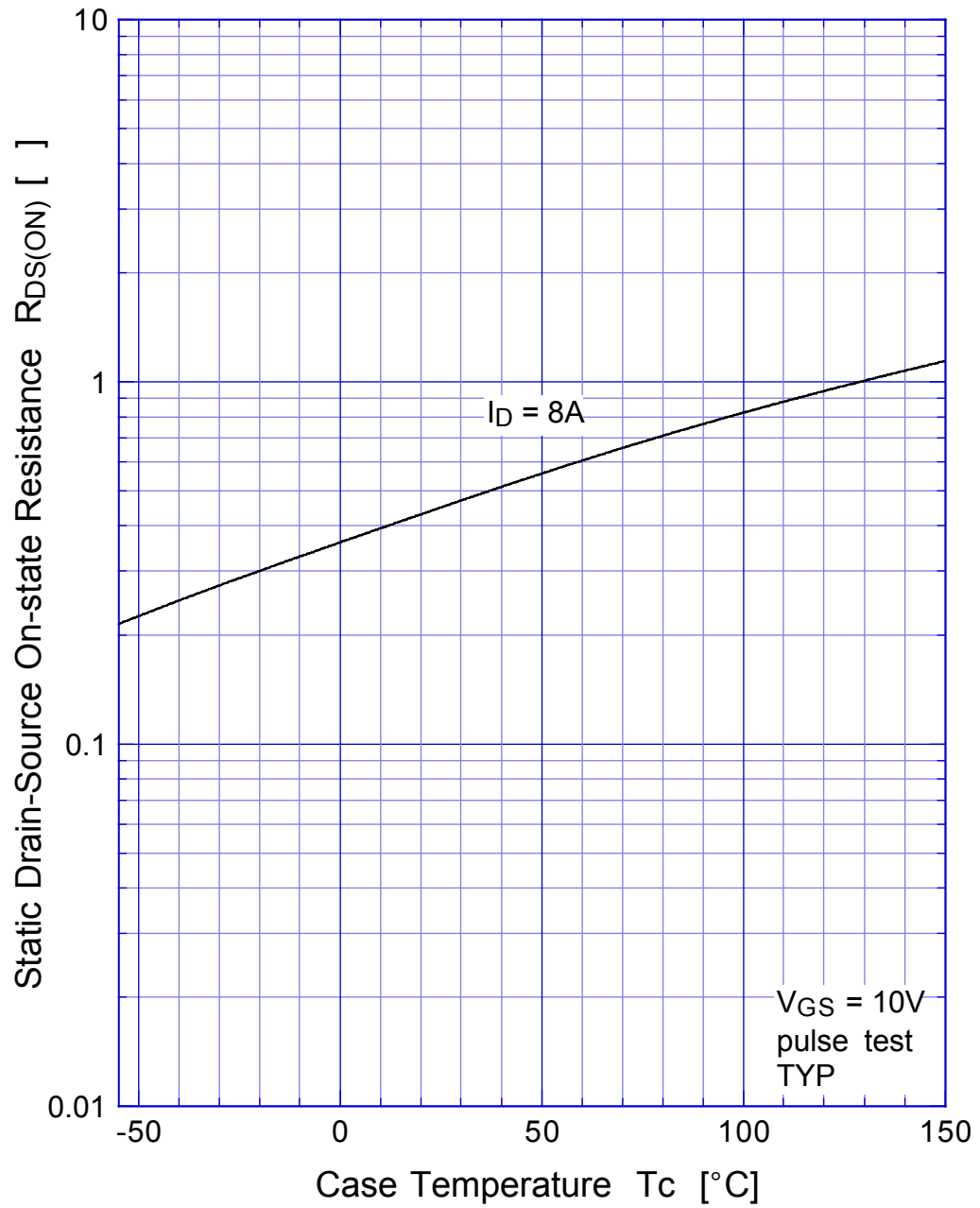
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0\text{V}$	600			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 600\text{V}, V_{GS} = 0\text{V}$			250	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 30\text{V}, V_{DS} = 0\text{V}$			± 0.1	
Forward Transconductance	g_{fs}	$I_D = 8\text{A}, V_{DS} = 10\text{V}$	6.2	10.0		S
Static Drain-Source On-state Resistance	$R_{DS(ON)}$	$I_D = 8\text{A}, V_{GS} = 10\text{V}$		0.45	0.6	Ω
Gate Threshold Voltage	V_{TH}	$I_D = 1\text{mA}, V_{DS} = 10\text{V}$	2.5	3	3.5	V
Source-Drain Diode Forward Voltage	V_{SD}	$I_S = 8\text{A}, V_{GS} = 0\text{V}$			1.5	
Thermal Resistance	θ_{jc}	junction to case			1	$^\circ\text{C}/\text{W}$
Total Gate Charge	Q_g	$V_{GS} = 10\text{V}, I_D = 16\text{A}, V_{DD} = 400\text{V}$		85		nC
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$		2300		pF
Reverse Transfer Capacitance	C_{rss}			180		
Output Capacitance	C_{oss}			480		
Turn-On Time	t_{on}	$I_D = 8\text{A}, V_{GS} = 10\text{V}, R_L = 19\Omega$		130	280	ns
Turn-Off Time	t_{off}			260	500	

2SK3012

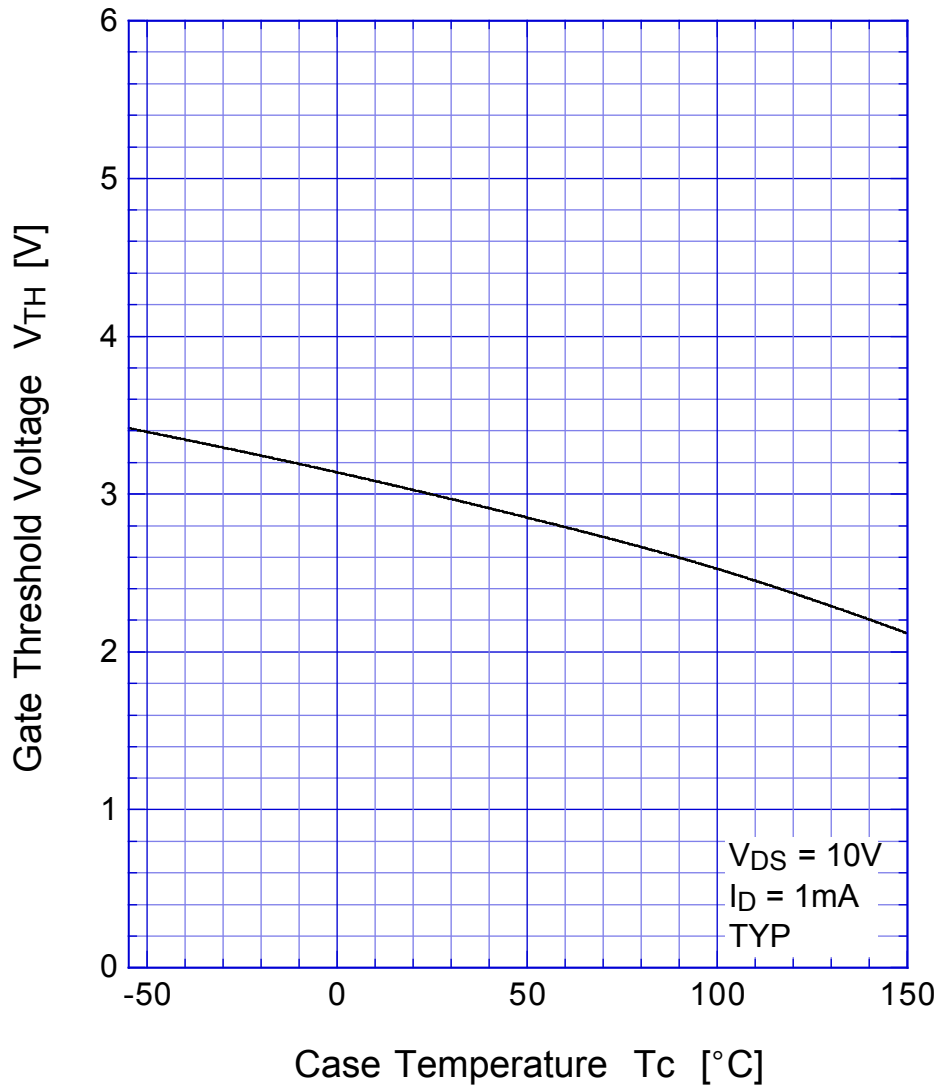
Transfer Characteristics



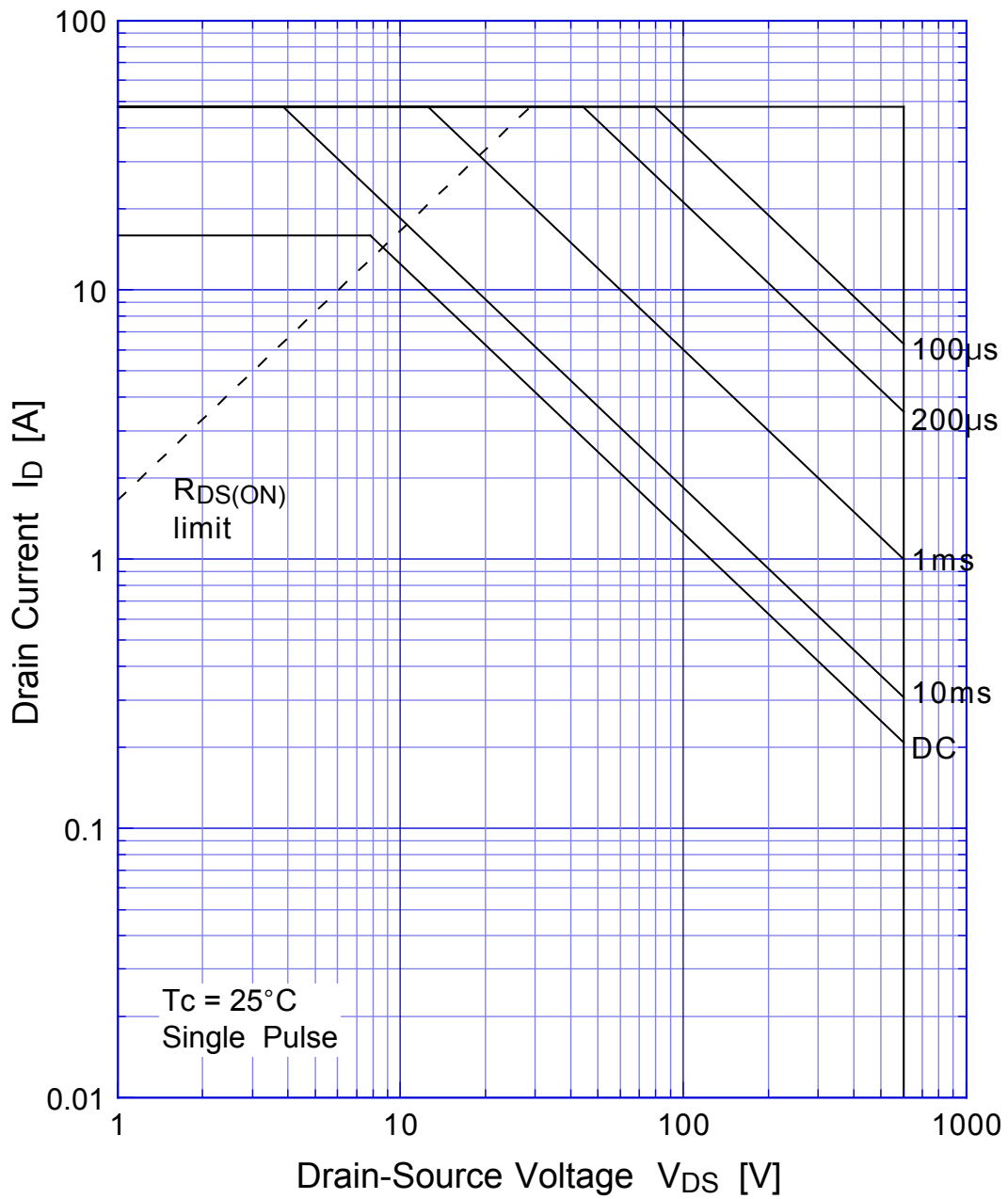
2SK3012 Static Drain-Source On-state Resistance



2SK3012 Gate Threshold Voltage



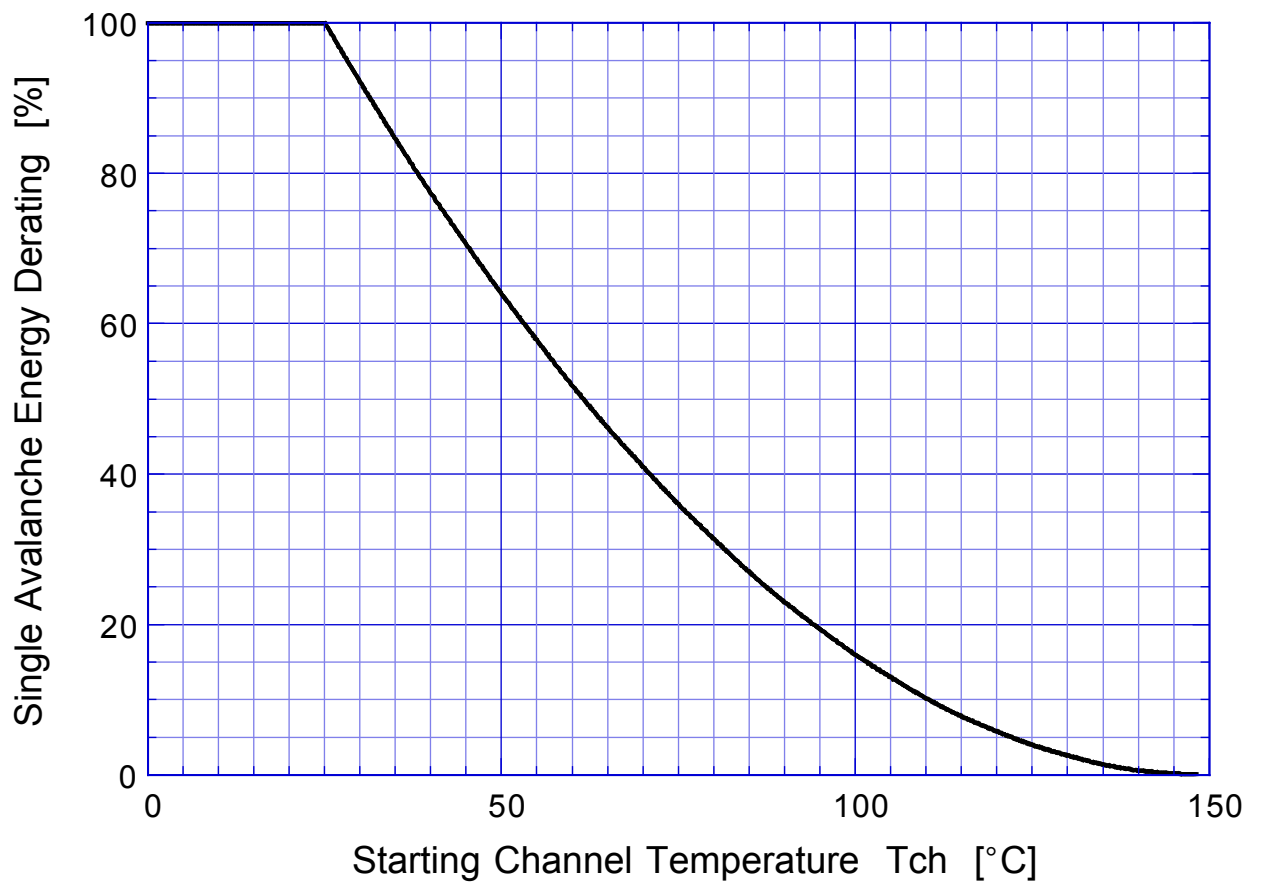
2SK3012 Safe Operating Area



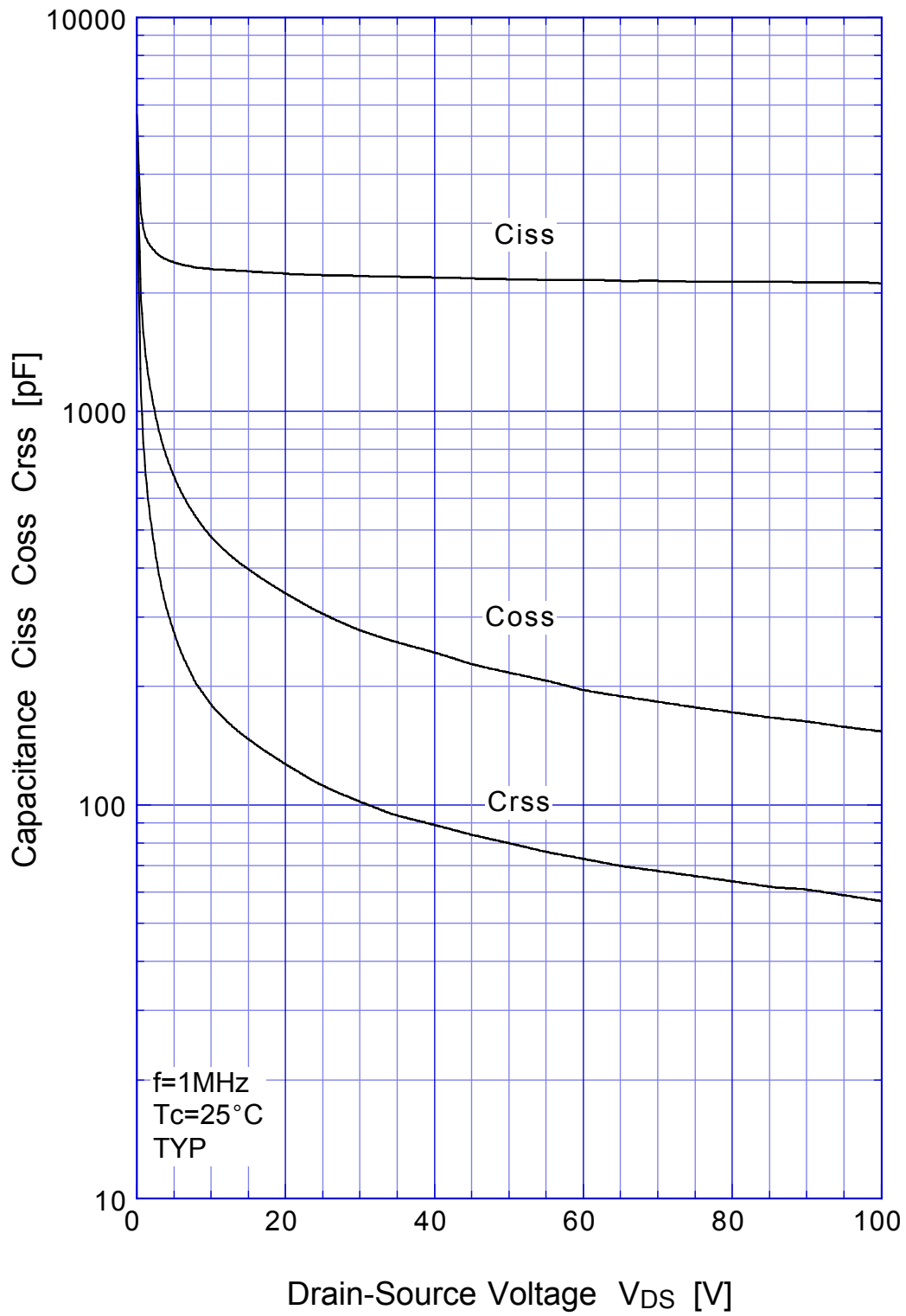
2SK3012 Transient Thermal Impedance



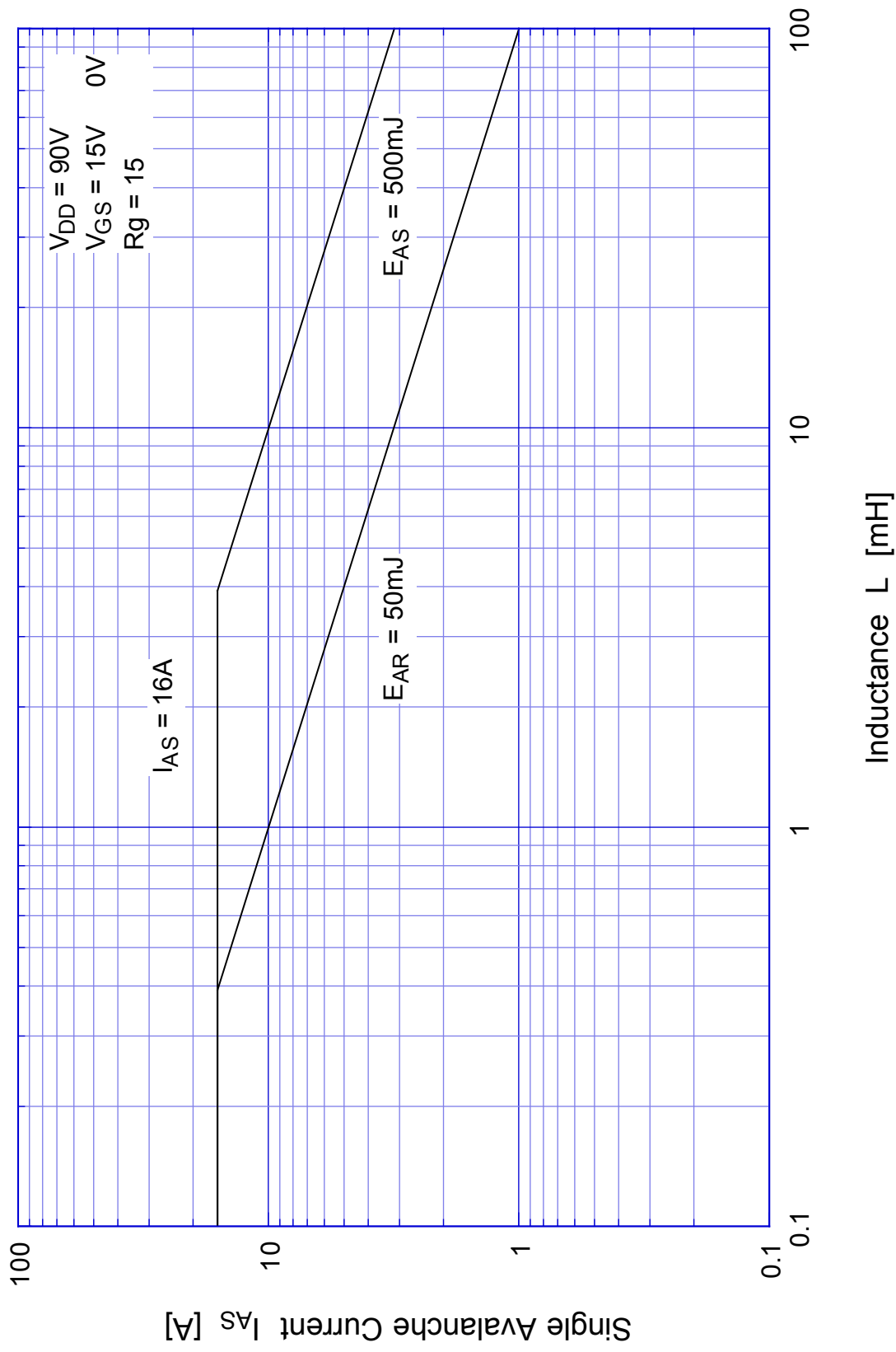
2SK3012 Single Avalanche Energy Derating



2SK3012 Capacitance

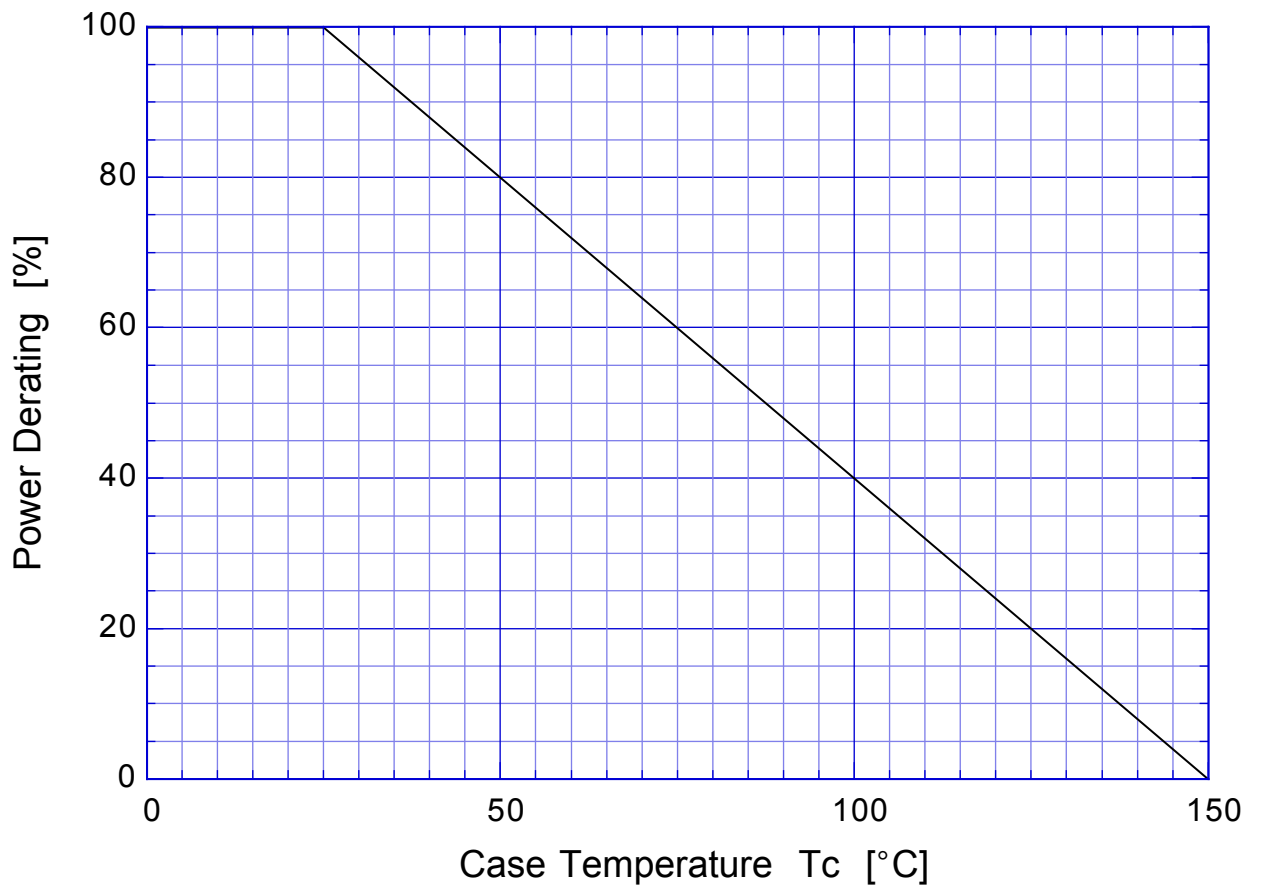


2SK3012 Single Avalanche Current - Inductive Load



2SK3012

Power Derating



2SK3012 Gate Charge Characteristics

