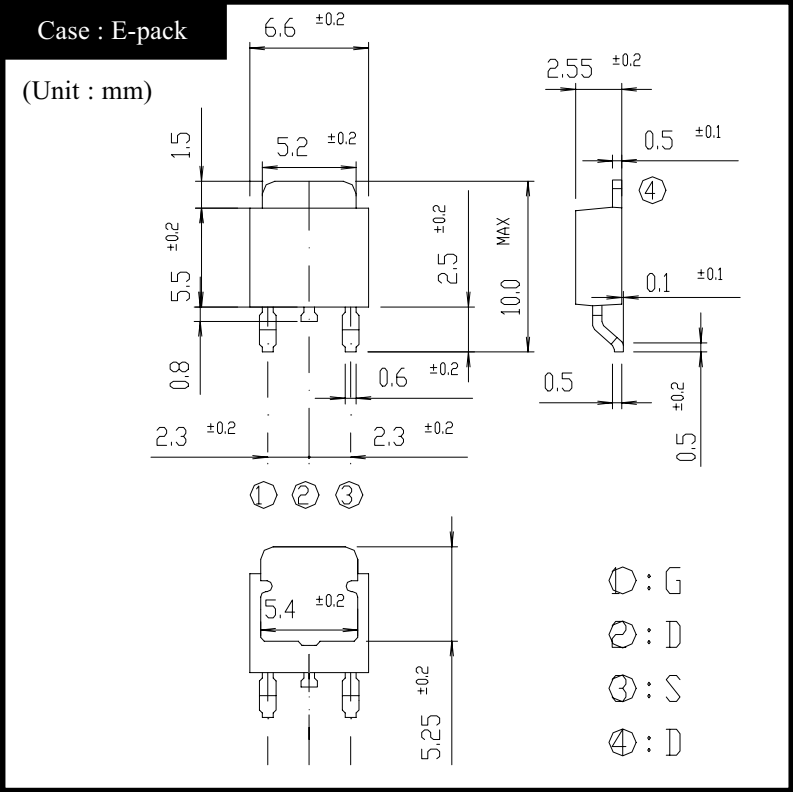


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(F04E15L)

150V 4A

OUTLINE DIMENSIONS



RATINGS

Absolute Maximum Ratings (Tc = 25°C)

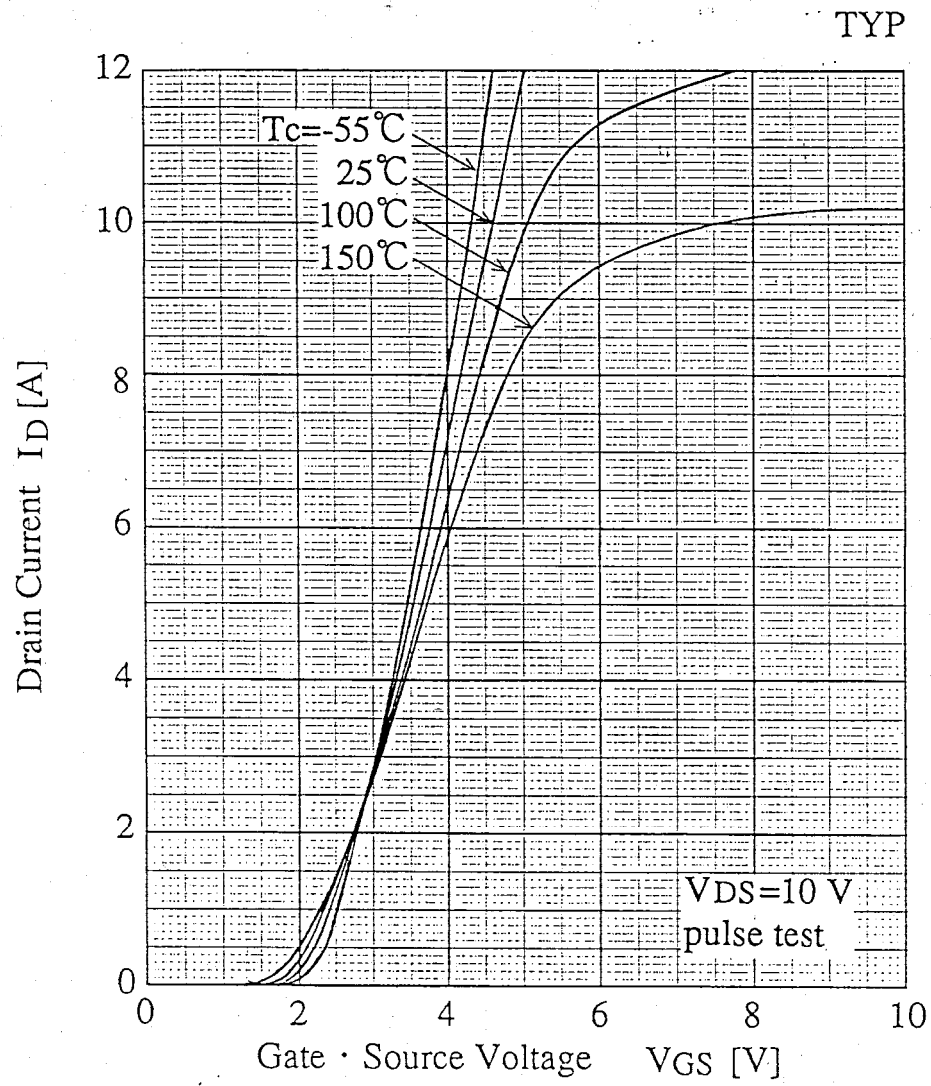
Item	Symbol	Conditions	Ratings	Unit
Storage Temperature	T _{stg}		-55 to 150	°C
Channel Temperature	T _{ch}		150	
Drain-Source Voltage	V _{DSS}		150	V
Gate-Source Voltage	V _{GSS}		±20	
Continuous Drain Current (DC)	I _D		4	A
Continuous Drain Current (Peak)	I _{DP}		12	
Continuous Source Current (DC)	I _S		4	
Total Power Dissipation	P _T		10	W

Electrical Characteristics T_c = 25°C

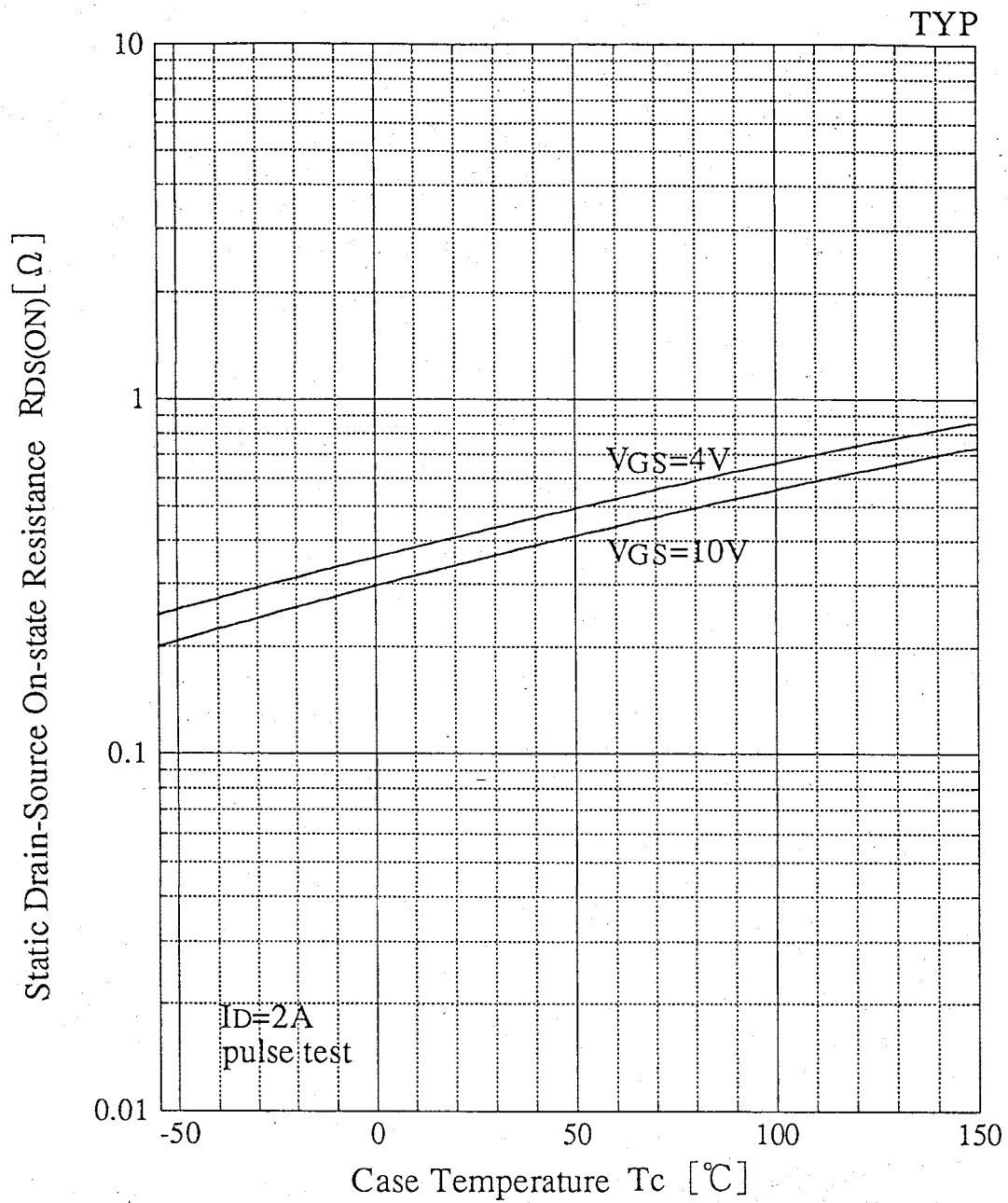
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	ID = 1mA, VGS = 0V	150			V
Zero Gate Voltage Drain Current	IDSS	VDS = 150V, VGS = 0V			250	μA
Gate-Source Leakage Current	IGSS	VGS = ±20V, VDS = 0V			±10	
Forward Transconductance	g _{fs}	ID = 2A, VDS = 10V	1.8	3.6		S
Static Drain-Source On-state Resistance	R _{DSON}	ID = 2A, VGS = 4V		0.42	0.6	Ω
		ID = 2A, VGS = 10V		0.35	0.5	
Gate Threshold Voltage	V _{TH}	ID = 1mA, VDS = 10V	1.0	1.5	2.0	V
Source-Drain Diode Forward Voltage	V _{SD}	IS = 4A, VGS = 0V			1.5	
Thermal Resistance	θ _{jc}	junction to case			12.5	°C/W
Total Gate Charge	Q _g	VGS = 10V, ID = 4A, VDD = 100V		21		nC
Input Capacitance	C _{iss}	VDS = 10V, VGS = 0V, f = 1MHz		480		pF
Reverse Transfer Capacitance	C _{rss}			50		
Output Capacitance	C _{oss}			160		
Turn-On Time	t _{on}	ID = 2A,		60	120	ns
Turn-Off Time	t _{off}	RL = 50Ω, VGS = 5V		120	240	

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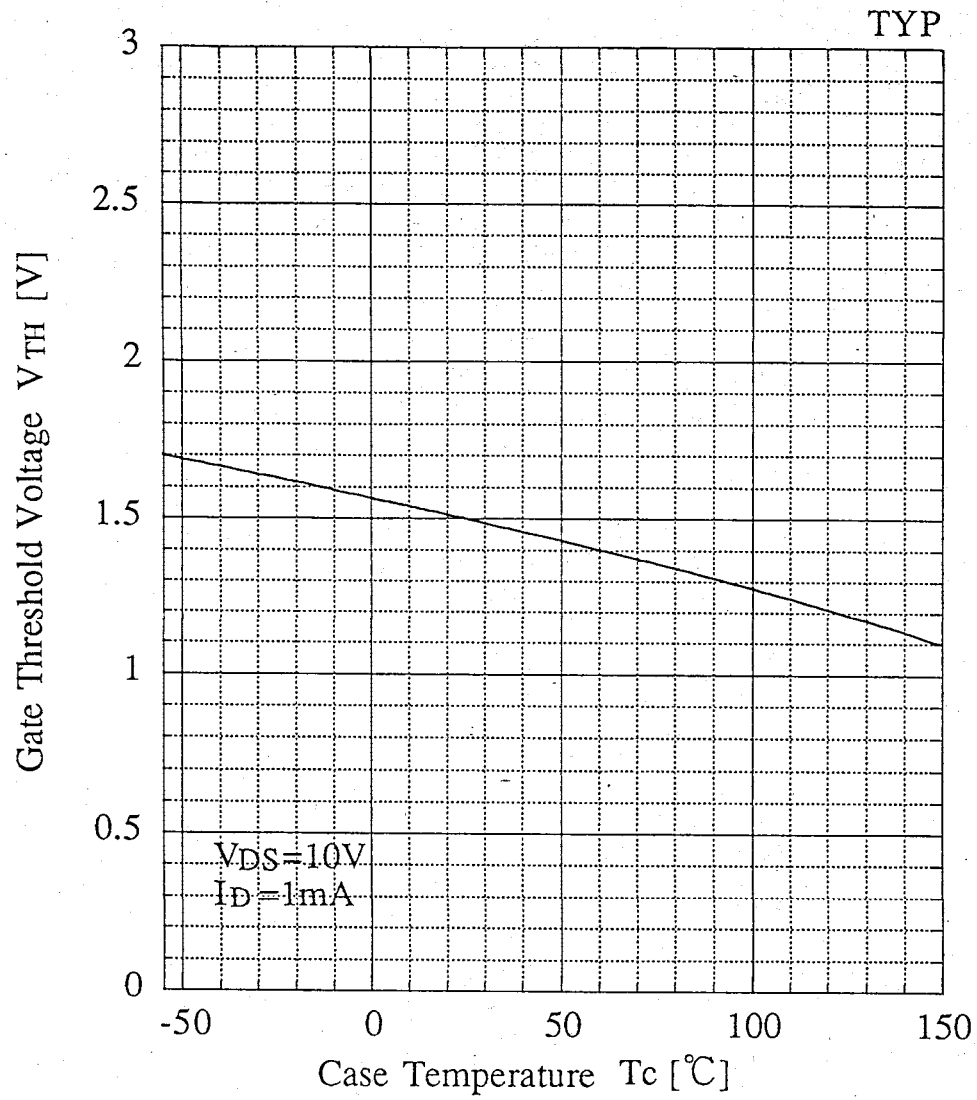
Transfer Characteristics



2SK1861 Static Drain-Source On-state Resistance

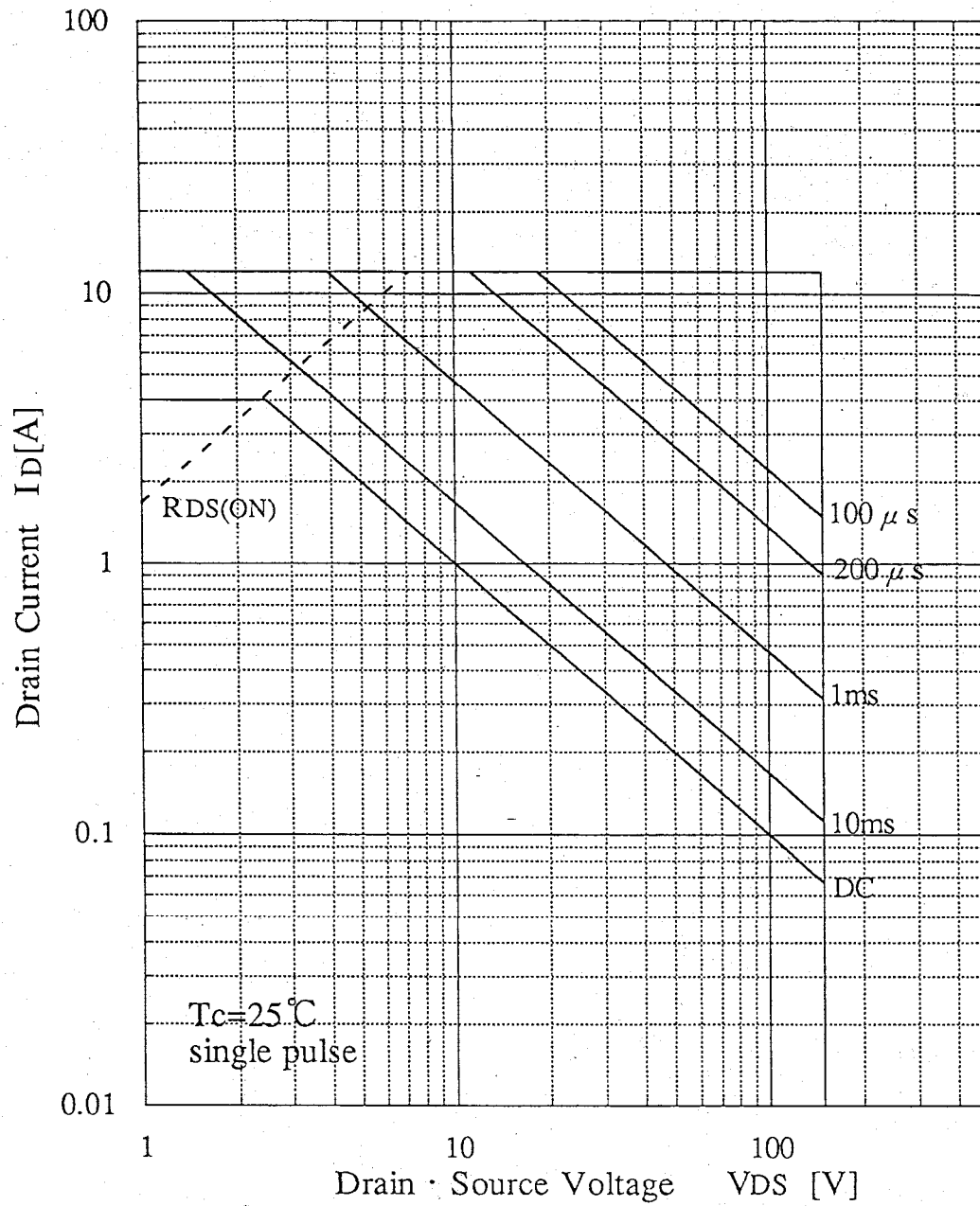


2SK1861 Gate Threshold Voltage

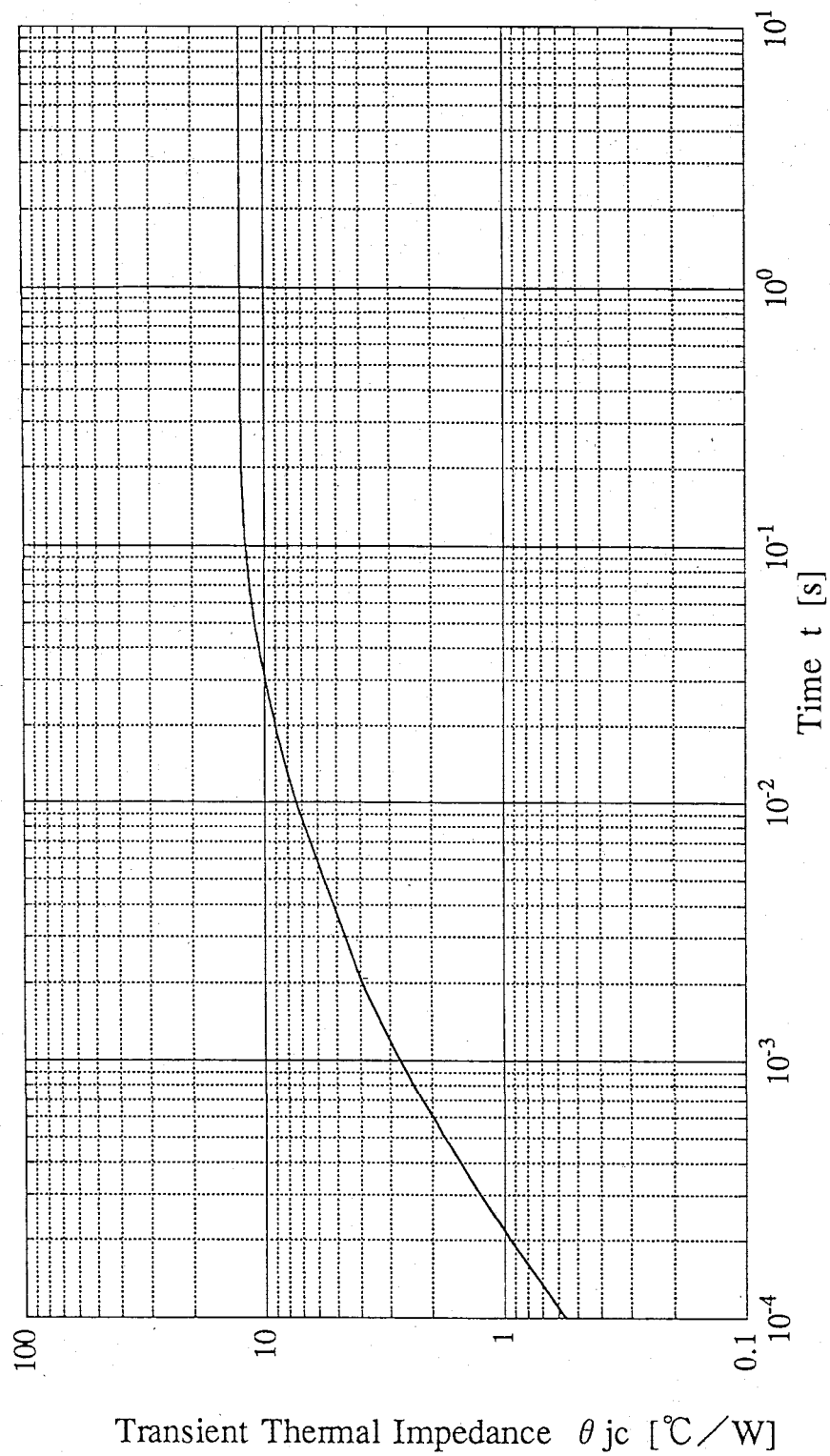


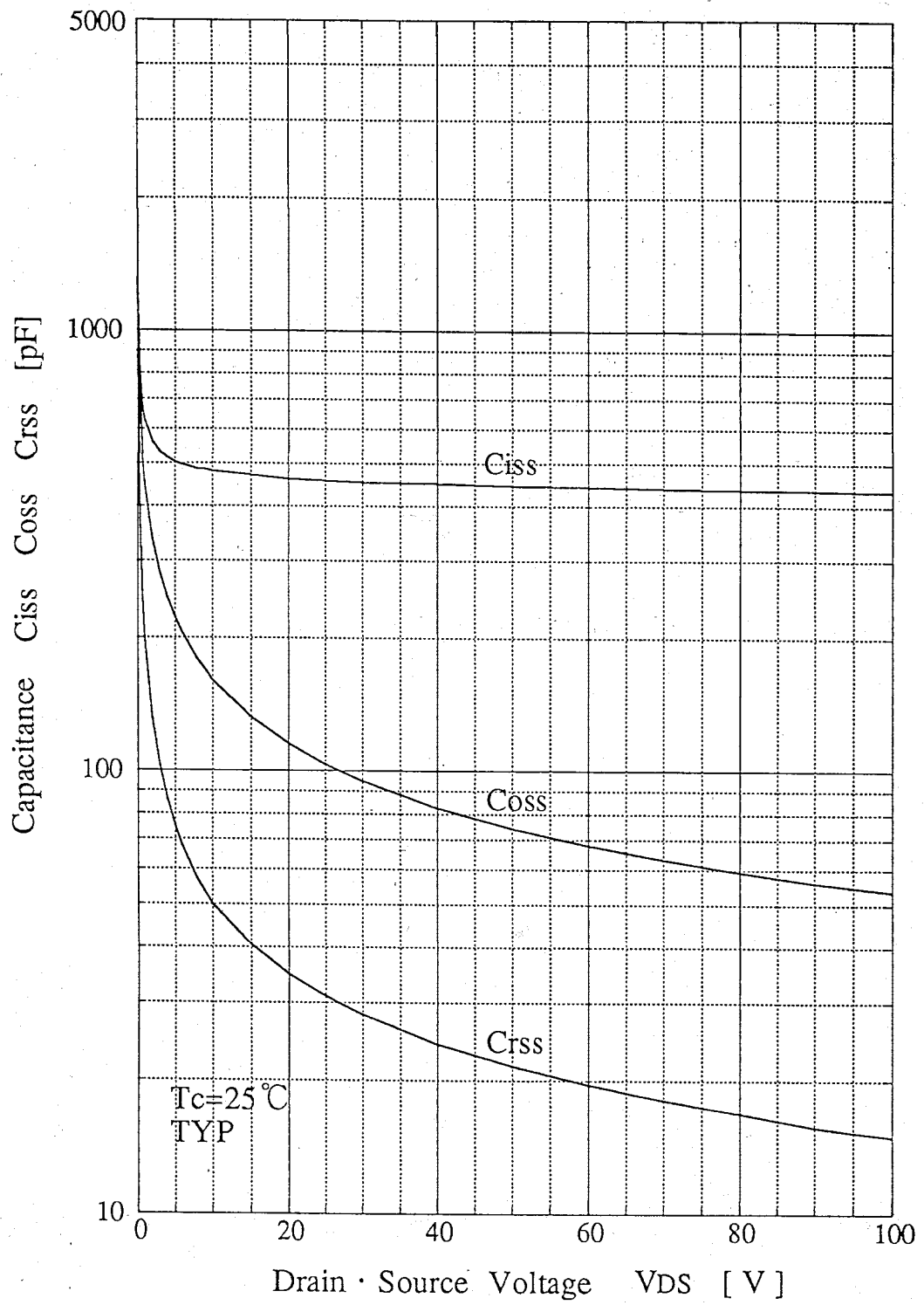
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Safe Operating Area

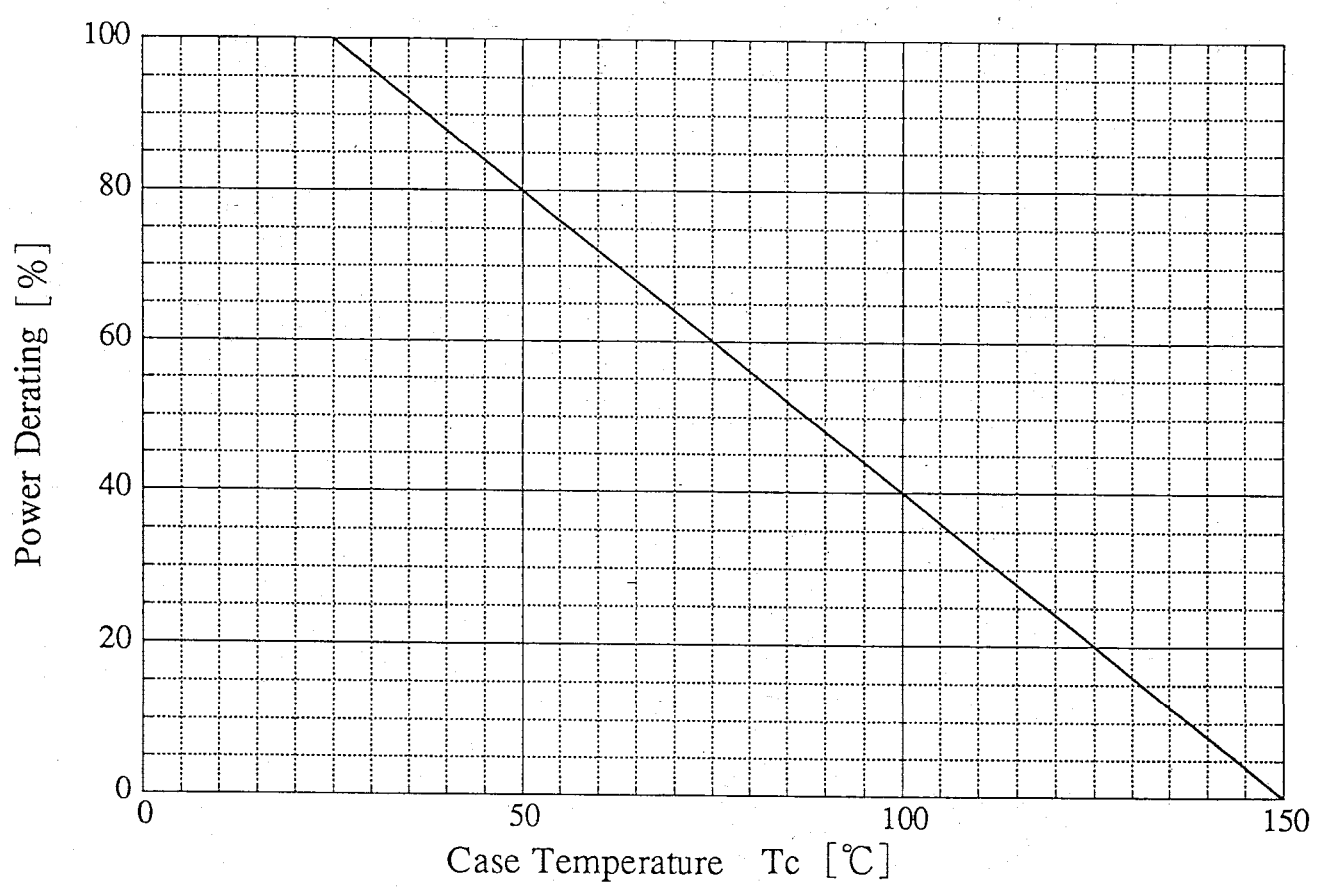


2SK1861 Transient Thermal Impedance





2SK1861 Power Derating



2SK1861 Gate Charge Characteristics

