

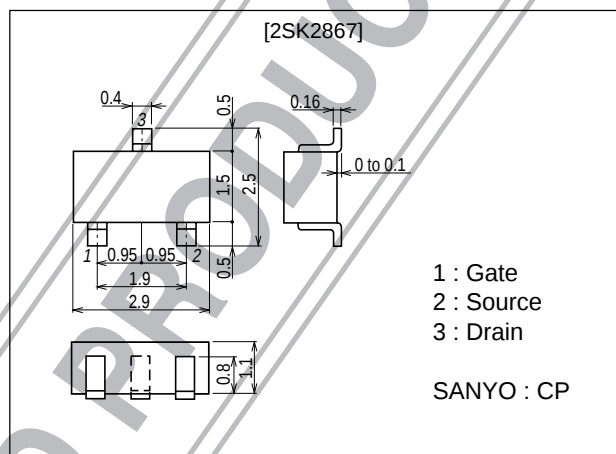
SANYO**2SK2867****Ultrahigh-Speed Switching Applications****Features**

- Ultrahigh-speed switching.
- Low-voltage drive.

Package Dimensions

unit : mm

2091A

**Specifications****Absolute Maximum Ratings** at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		450	V
Gate-to-Source Voltage	V_{GS}		± 15	V
Drain Current (DC)	I_D		30	mA
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$	120	mA
Allowable Power Dissipation	P_D	$T_c=25^\circ\text{C}$	250	mW
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=500\mu\text{A}$, $V_{GS}=0$	450			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=450\text{V}$, $V_{GS}=0$			10	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 12\text{V}$, $V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10\text{V}$, $I_D=1\text{mA}$	1.0		2.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10\text{V}$, $I_D=15\text{mA}$	14	28		mS
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=15\text{mA}$, $V_{GS}=10\text{V}$		190	250	Ω
	$R_{DS(on)2}$	$I_D=15\text{mA}$, $V_{GS}=4\text{V}$		210	275	Ω

Marking : CK

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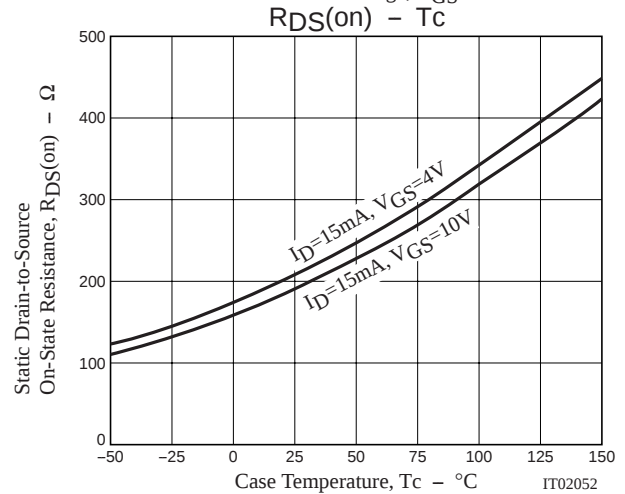
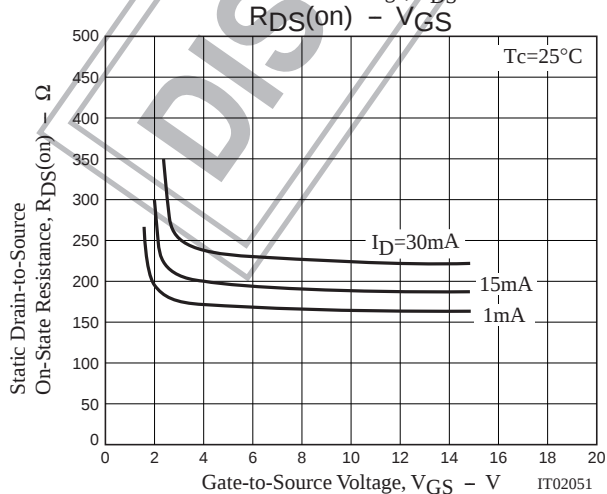
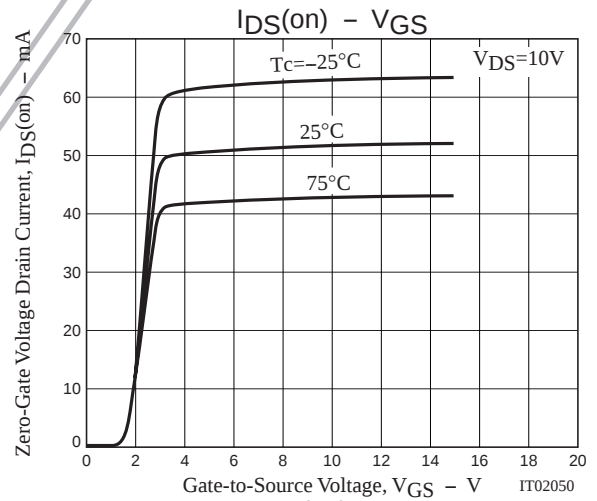
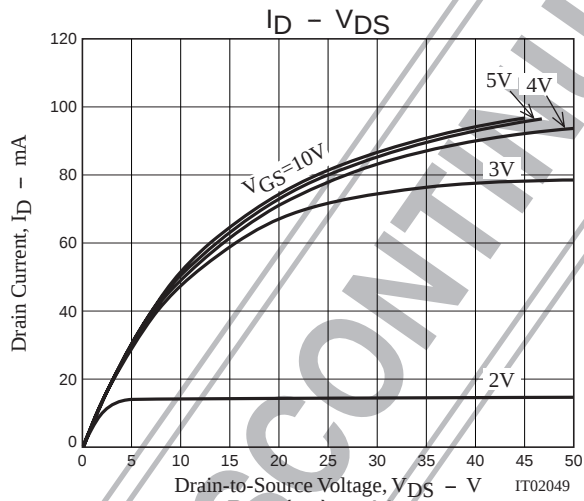
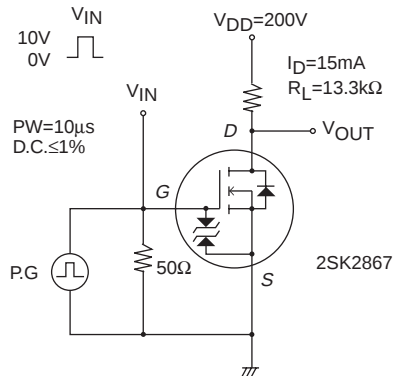
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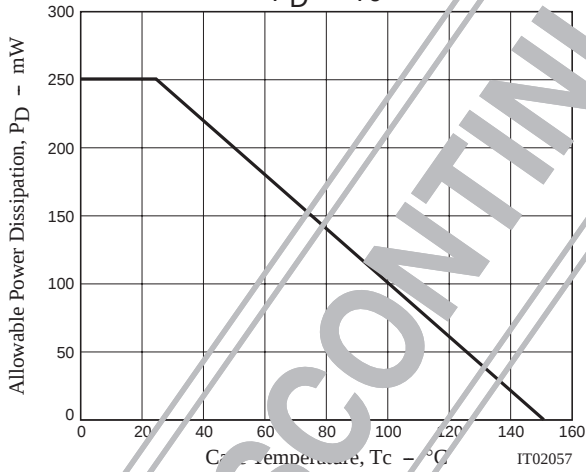
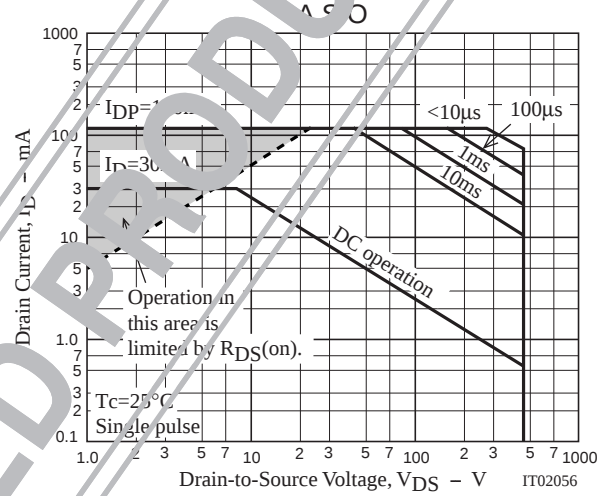
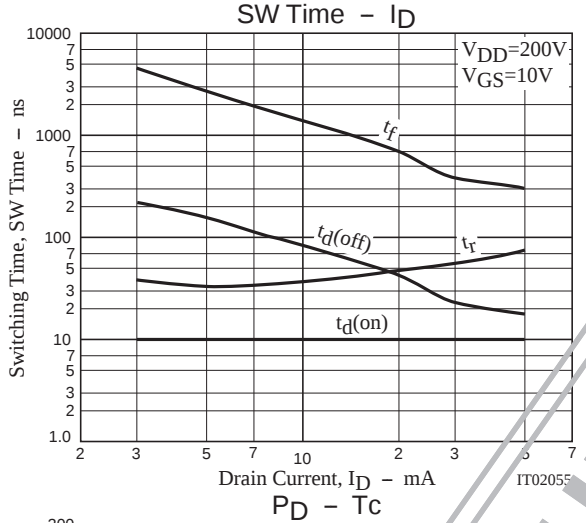
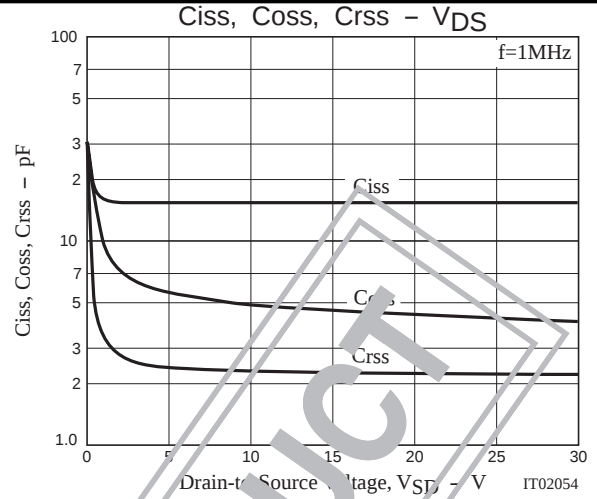
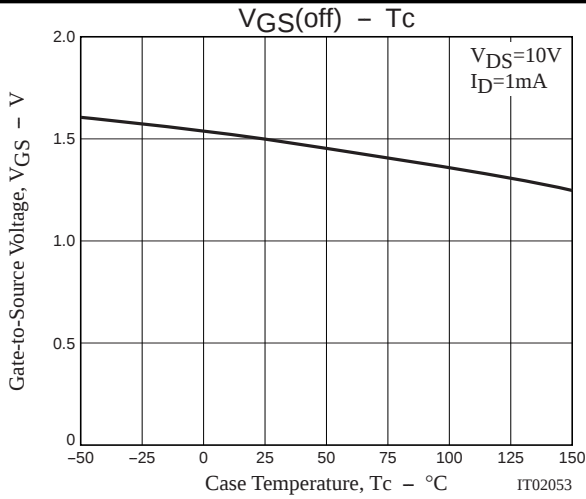
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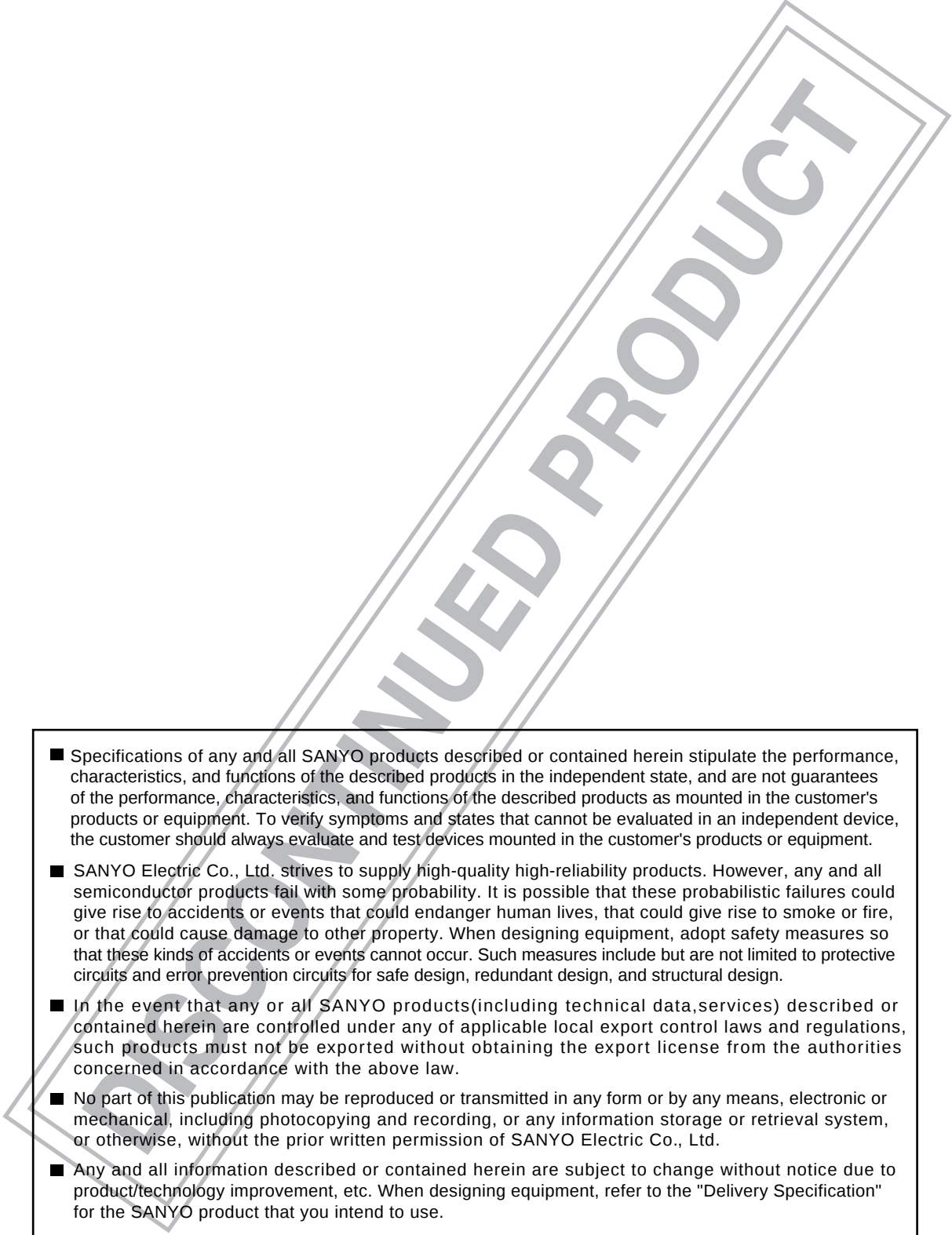
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		20		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		5		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		3		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		10		ns
Rise Time	t_r	See specified Test Circuit		45		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		60		ns
Fall Time	t_f	See specified Test Circuit		1		μs
Diode Forward Voltage	V_{SD}	$I_S=30mA, V_{GS}=0$		0.79	1.2	V

Switching Time Test Circuit





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