

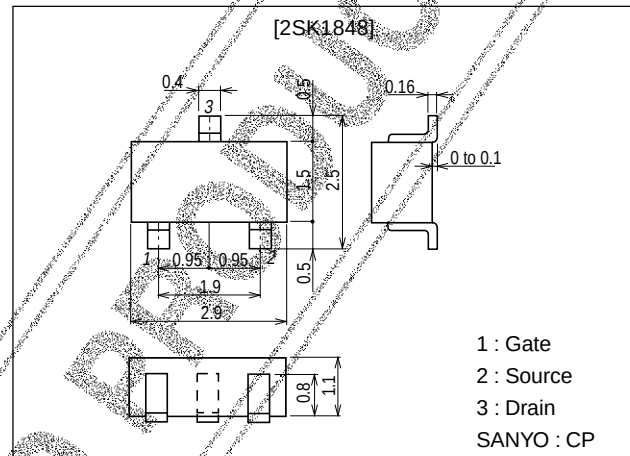
SANYO**Ultrahigh-Speed Switching Applications****Features**

- Low ON resistance.
- 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}		60	V
Gate-to-Source Voltage	V_{GS}		± 15	V
Drain Current (DC)	I_D		400	mA
Drain Current (pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycles $\leq 1\%$	1.6	A
Allowable Power Dissipation	P_D		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	$V_{(BR)DSS}$	$I_D = 1\text{mA}$, $V_{GS} = 0$	60			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 60\text{V}$, $V_{GS} = 0$			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} $	$V_{DS} = 10\text{V}$, $I_D = 200\text{mA}$	300	600		mS
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = 200\text{mA}$, $V_{GS} = 10\text{V}$		0.9	1.2	Ω
	$R_{DS(on)2}$	$I_D = 200\text{mA}$, $V_{GS} = 4\text{V}$		1.2	1.6	Ω

Marking : L.J

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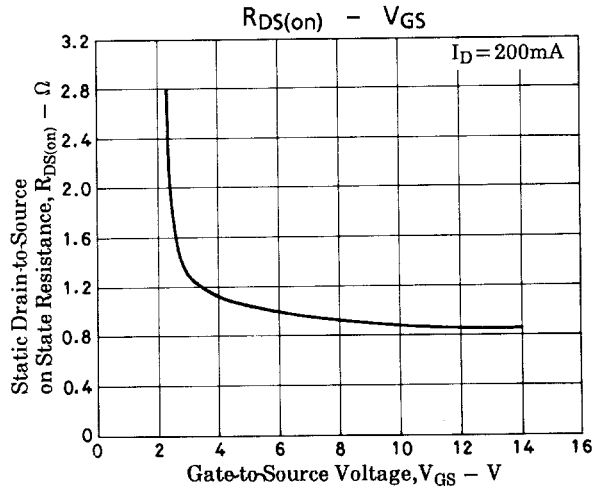
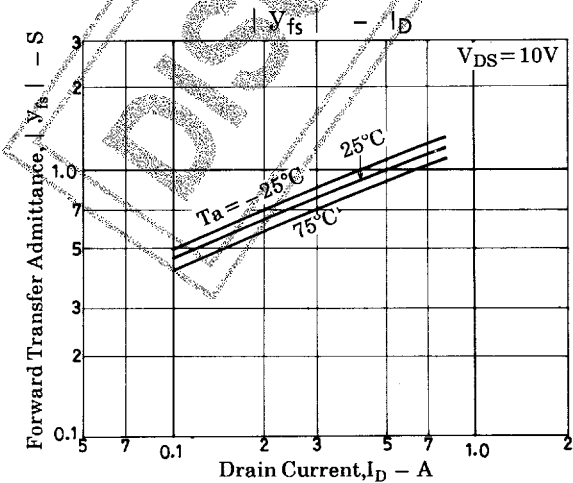
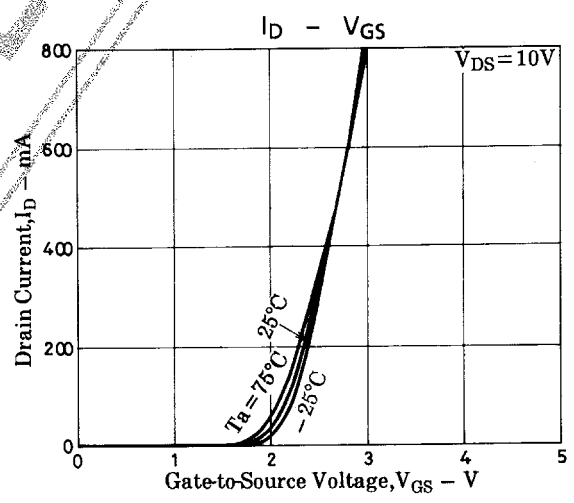
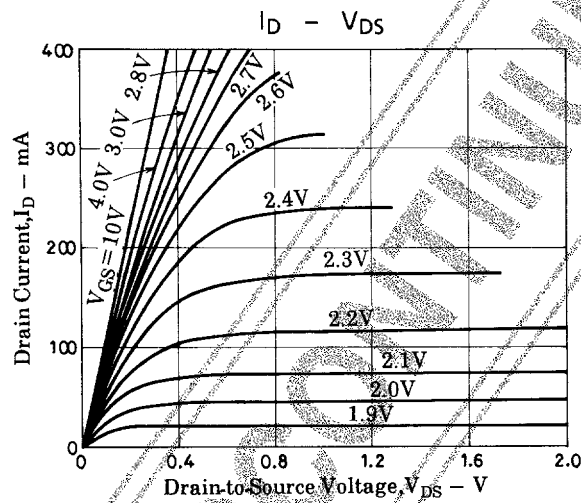
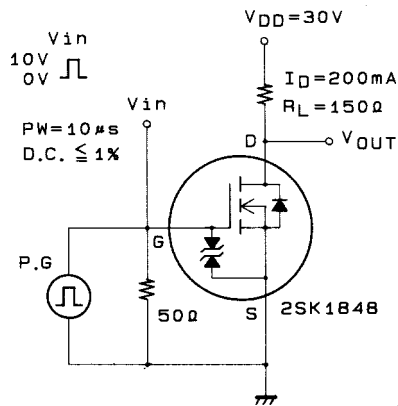
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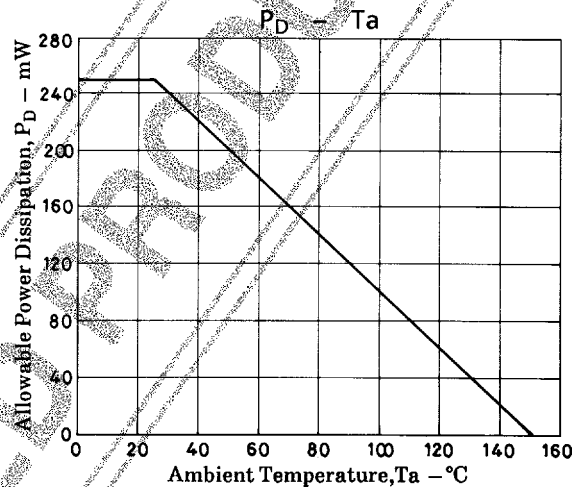
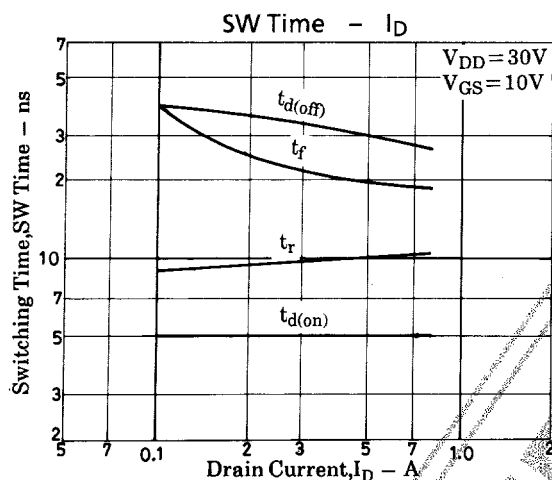
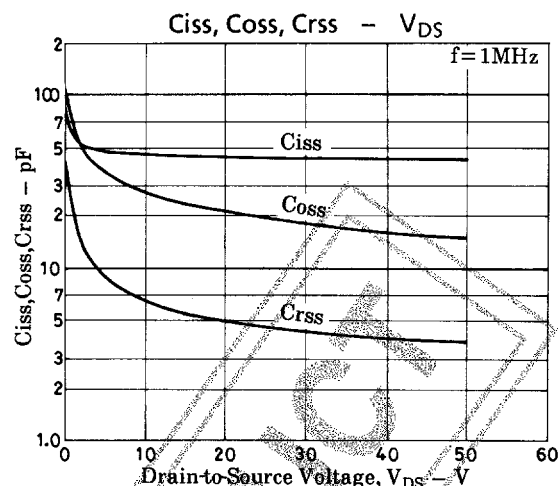
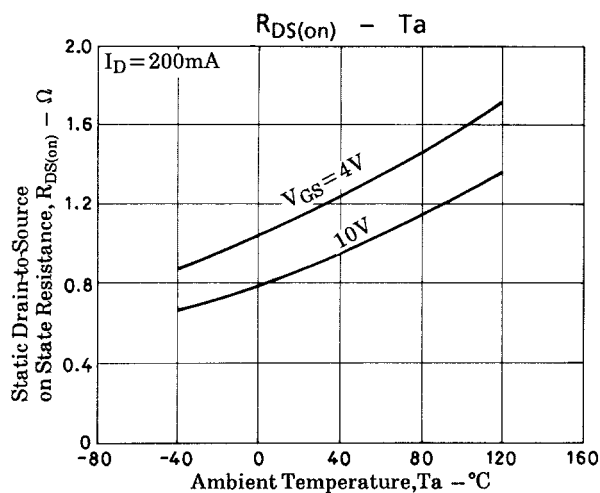
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Parameter	Symbol	Conditions	Ratings	Unit
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$	45	pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$	22	pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$	5	pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit	5	ns
Rise Time	t_r	See specified Test Circuit	10	ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit	35	ns
Fall Time	t_f	See specified Test Circuit	25	ns
Diode Forward Voltage	V_{SD}	$I_S=400mA, V_{GS}=0$	0.9	V

Switching Time Test Circuit





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