



No.4501

**2SK1849**

N-Channel MOS Silicon FET

**Very High-Speed  
Switching Applications**

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

**Absolute Maximum Ratings at Ta = 25°C**

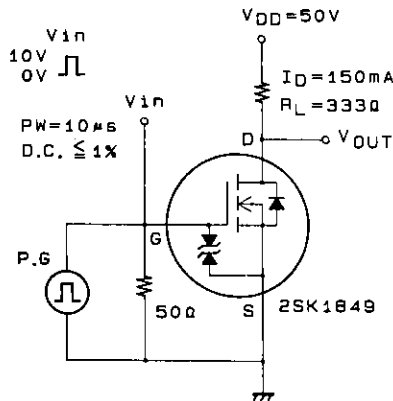
			unit
Drain-to-Source Voltage	$V_{DSS}$	100	V
Gate-to-Source Voltage	$V_{GSS}$	$\pm 15$	V
Drain Current(DC)	$I_D$	250	mA
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	1 A
Allowable Power Dissipation	$P_D$	250	mW
Channel Temperature	$T_{ch}$	150	°C
Storage Temperature	$T_{stg}$	-55 to +150	°C

**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	100			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 100V, V_{GS} = 0$			100	$\mu A$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0$			$\pm 10$	$\mu A$
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 150mA$	250	500		mS
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 150mA, V_{GS} = 10V$		2.7	3.5	$\Omega$
	$R_{DS(on)}$	$I_D = 150mA, V_{GS} = 4V$		3.2	4.2	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 20V, f = 1MHz$		45		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V, f = 1MHz$		15		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V, f = 1MHz$		3		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		5		ns
Rise Time	$t_r$	"		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		40		ns
Fall Time	$t_f$	"		35		ns
Diode Forward Voltage	$V_{SD}$	$I_S = 250mA, V_{GS} = 0$		0.9		V

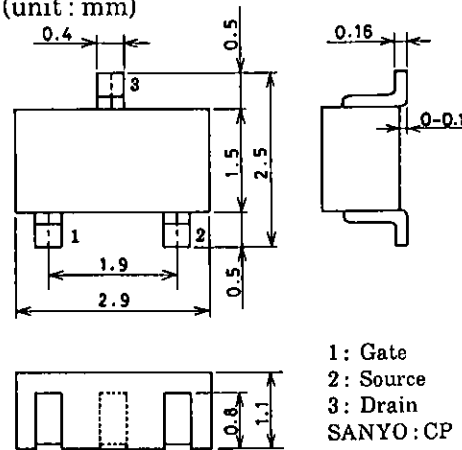
Marking : MJ

**Switching Time Test Circuit**



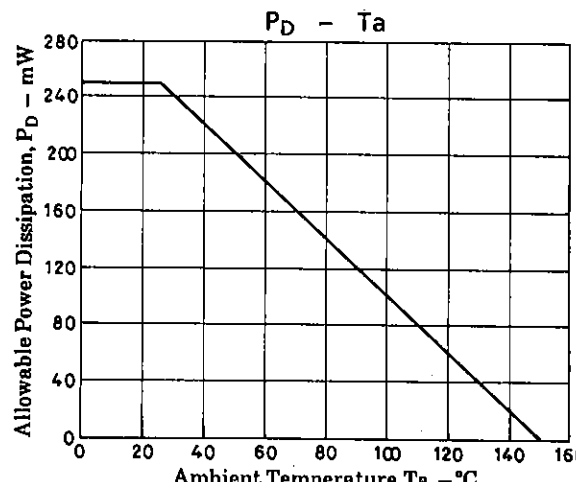
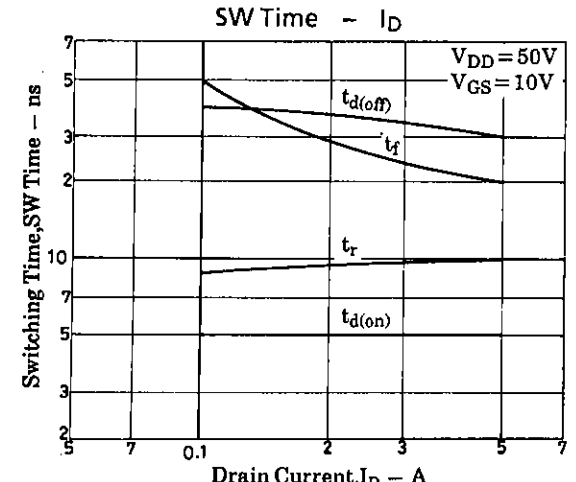
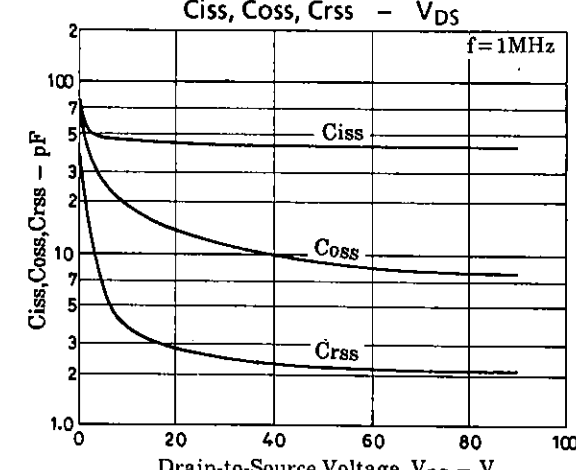
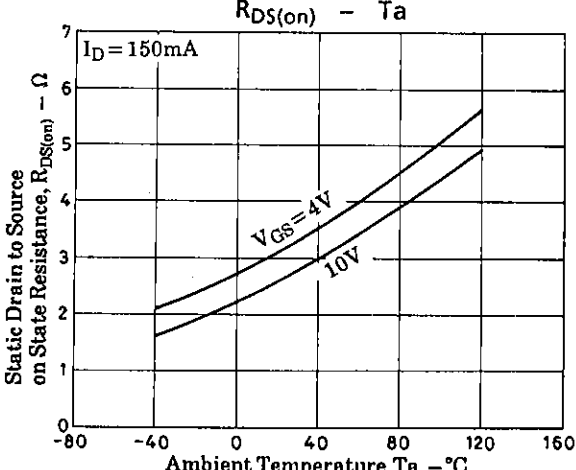
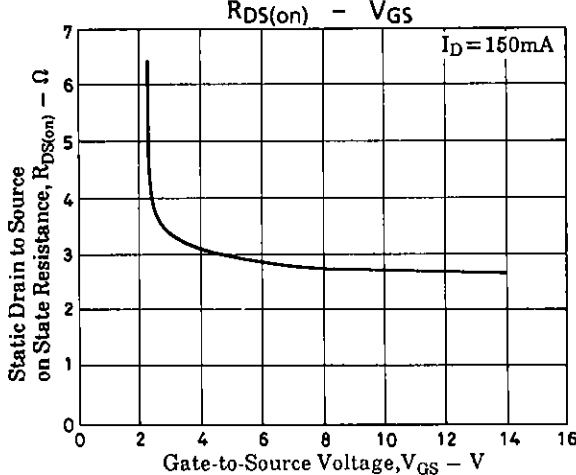
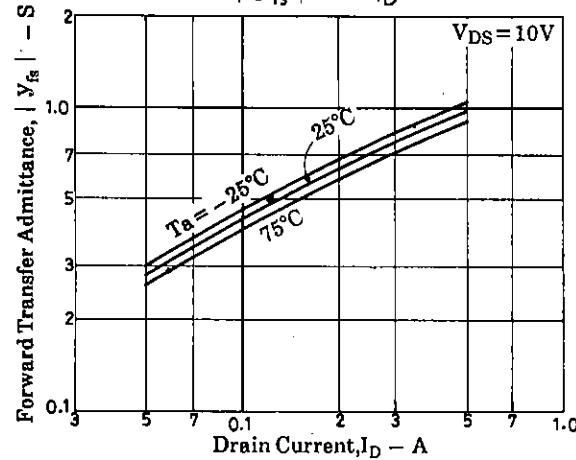
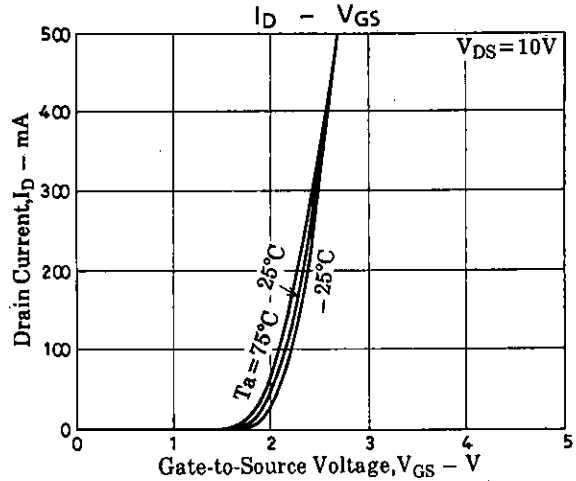
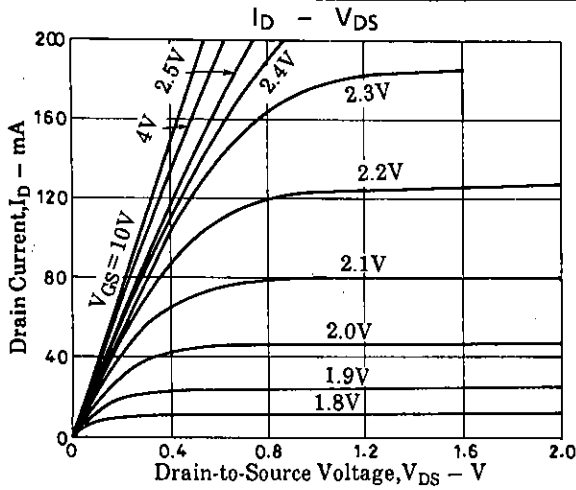
**Package Dimensions 2091A**

(unit : mm)



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