

SANYO

No.4505

2SK1847

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}	30	V
Gate-to-Source Voltage	V_{GSS}	± 15	V
Drain Current(DC)	I_D	500	mA
Drain Current(Pulse)	I_{DP}	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	A
Allowable Power Dissipation	P_D	250	mW
Channel Temperature	T_{ch}	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

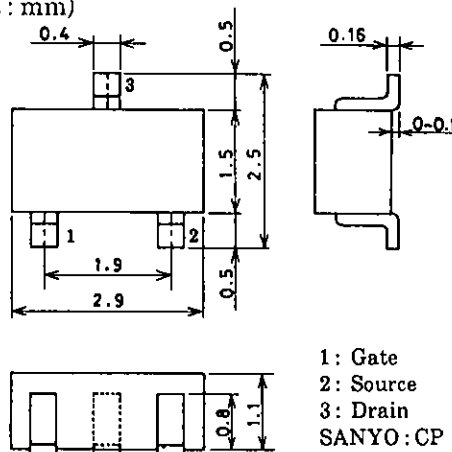
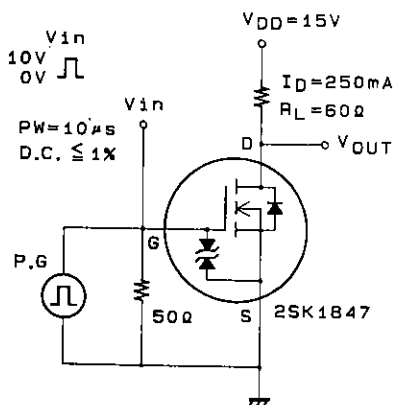
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 30\text{V}, V_{GS} = 0$			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} $	$V_{DS} = 10\text{V}, I_D = 250\text{mA}$	350	700		mS
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 250\text{mA}, V_{GS} = 10\text{V}$		0.5	0.75	Ω
	$R_{DS(on)}$	$I_D = 250\text{mA}, V_{GS} = 4\text{V}$		0.75	1.1	Ω
Input Capacitance	C_{iss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		50		pF
Output Capacitance	C_{oss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		35		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10\text{V}, f = 1\text{MHz}$		10		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		5		ns
Rise Time	t_r	"		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		35		ns
Fall Time	t_f	"		20		ns
Diode Forward Voltage	V_{SD}	$I_S = 500\text{mA}, V_{GS} = 0$		0.9		V

Marking: KJ

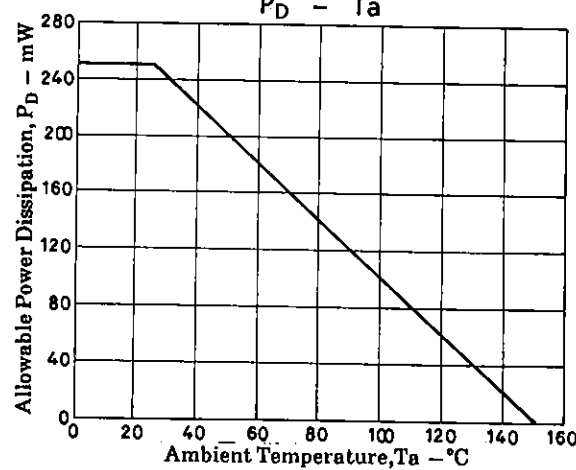
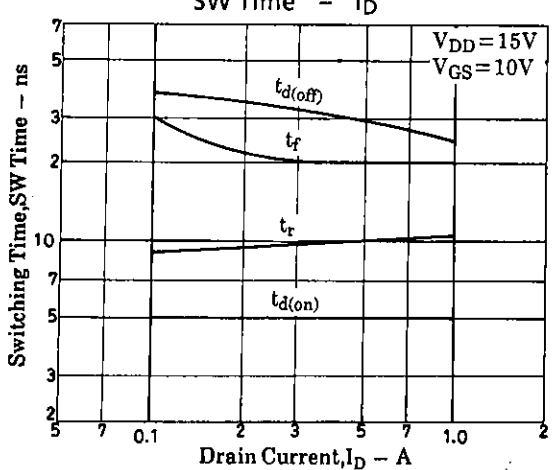
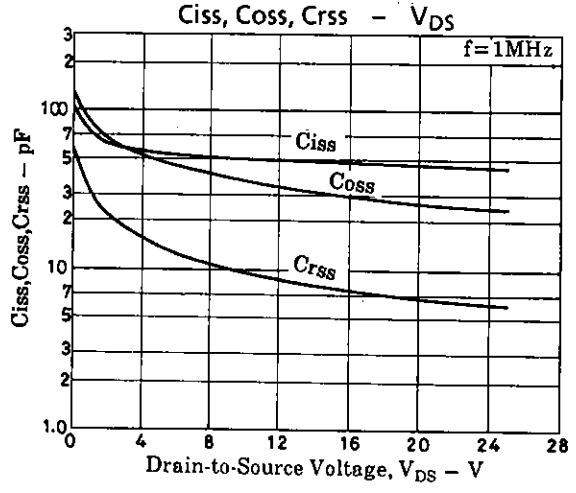
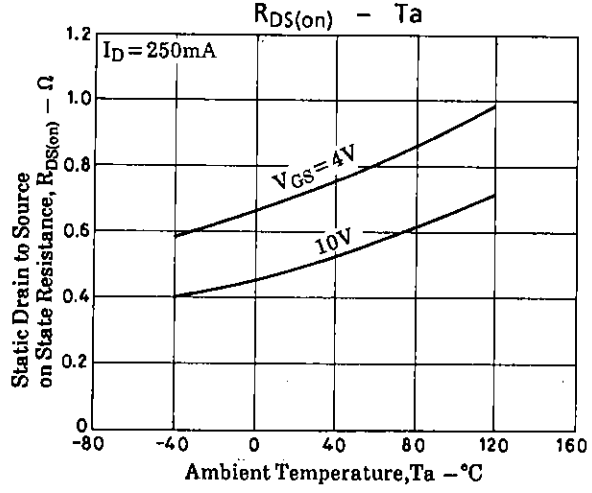
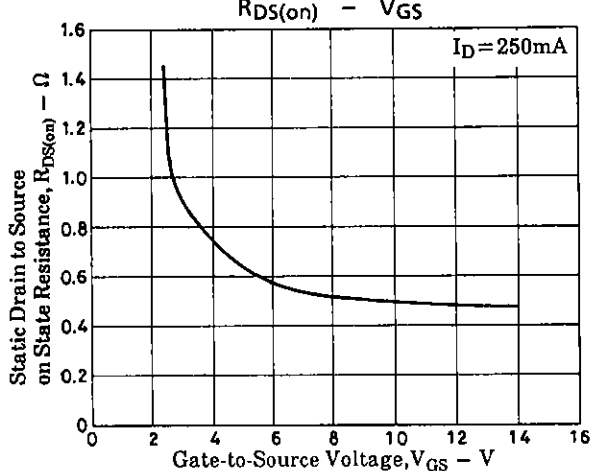
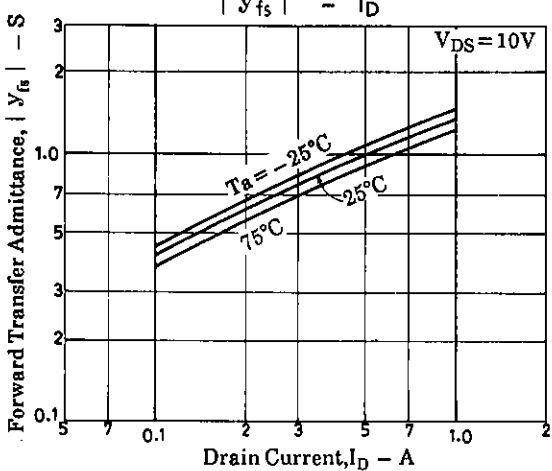
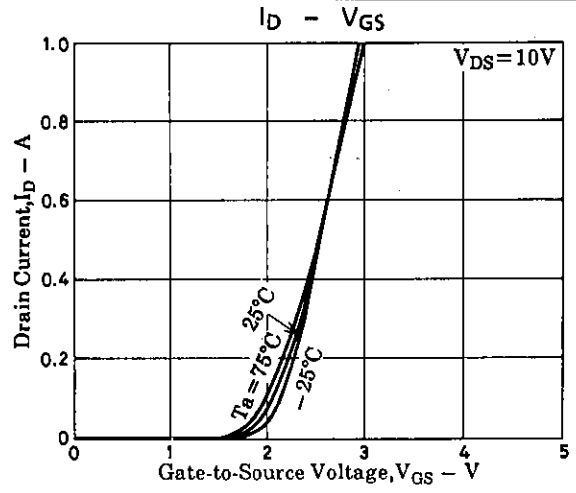
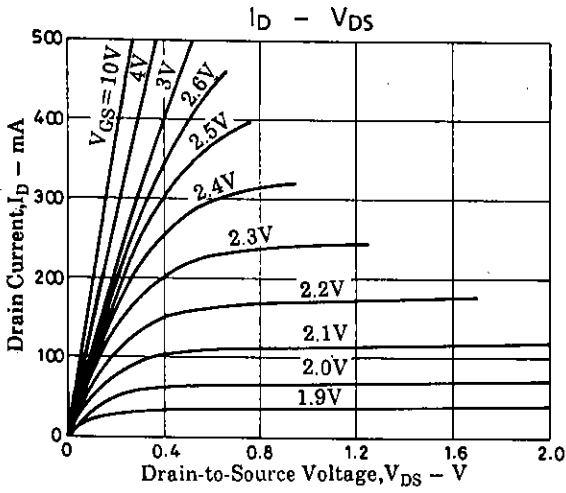
Package Dimensions 2091A

(unit: mm)

**Switching Time Test Circuit**

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