



No.3767

**2SJ194**

P-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**

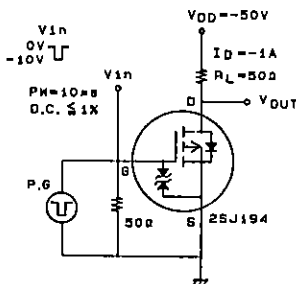
			unit
Drain to Source Voltage	V <sub>DS</sub>	-100	V
Gate to Source Voltage	V <sub>GS</sub>	±15	V
Drain Current(DC)	I <sub>D</sub>	-2	A
Drain Current(Pulse)	I <sub>DP</sub>	-8	A
Allowable Power Dissipation	P <sub>D</sub>	20	W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

PW ≤ 10 μs, duty cycle ≤ 1%  
T<sub>c</sub> = 25°C

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

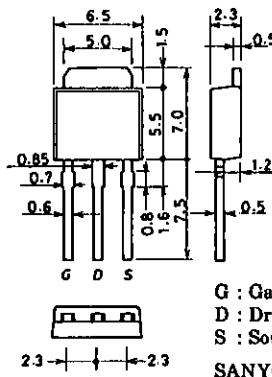
			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = -1mA, V <sub>GS</sub> = 0	-100			V
G-S Breakdown Voltage	V <sub>(BR)GSS</sub>	I <sub>G</sub> = ±100 μA, V <sub>DS</sub> = 0	±15			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = -100V, V <sub>GS</sub> = 0			-100	μA
Gate to Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±12V, V <sub>DS</sub> = 0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = -10V, I <sub>D</sub> = -1mA	-1.0		-2.0	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = -10V, I <sub>D</sub> = -1A	1.2	2		S
Static Drain to Source on State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = -1A, V <sub>GS</sub> = -10V		0.7	0.95	Ω
	R <sub>DS(on)</sub>	I <sub>D</sub> = -1A, V <sub>GS</sub> = -4V		0.95	1.3	Ω
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = -20V, f = 1MHz		380		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = -20V, f = 1MHz		100		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = -20V, f = 1MHz		20		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		12		ns
Rise Time	t <sub>r</sub>	∕		14		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	∕		75		ns
Fall Time	t <sub>f</sub>	∕		40		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = -2A, V <sub>GS</sub> = 0	-1.0	-1.5		V

**Switching Time Test Circuit**



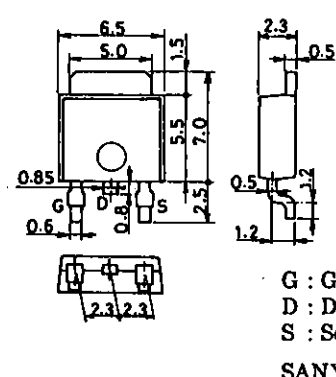
**Package Dimensions 2083A**

(unit : mm)



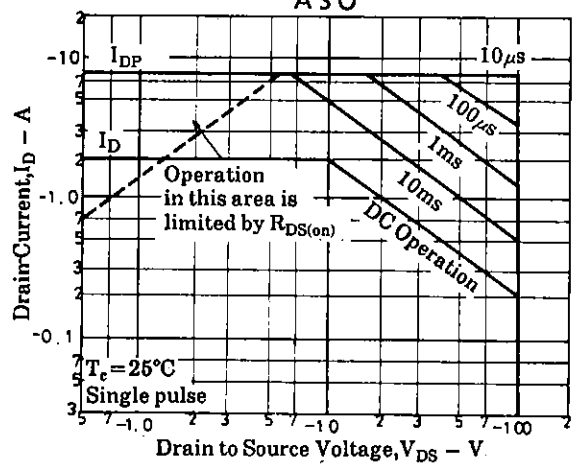
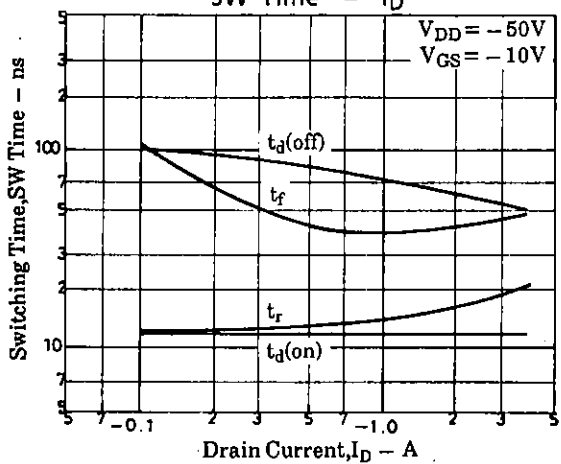
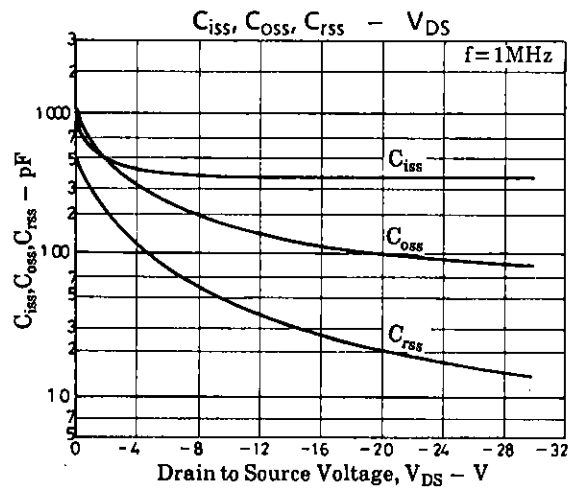
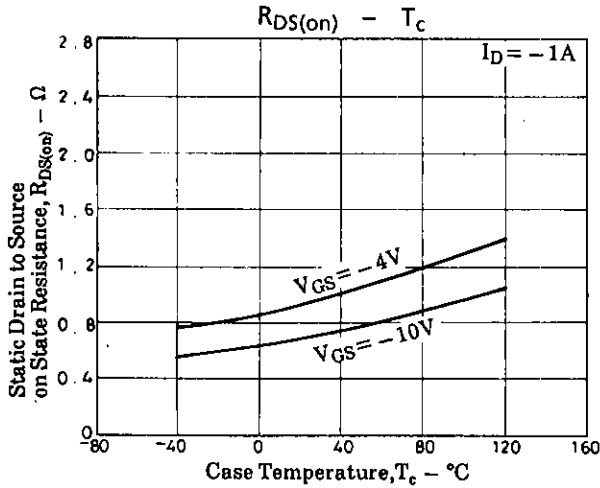
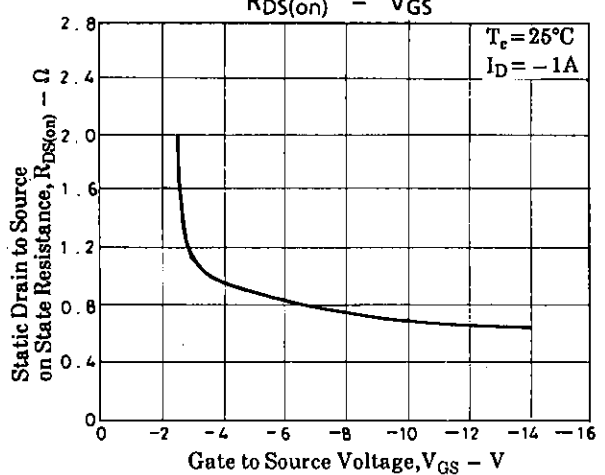
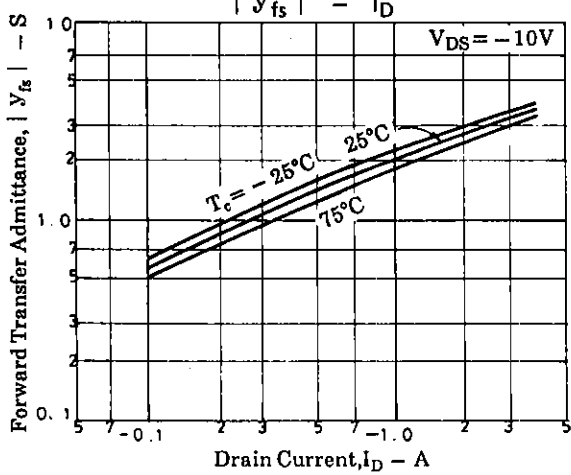
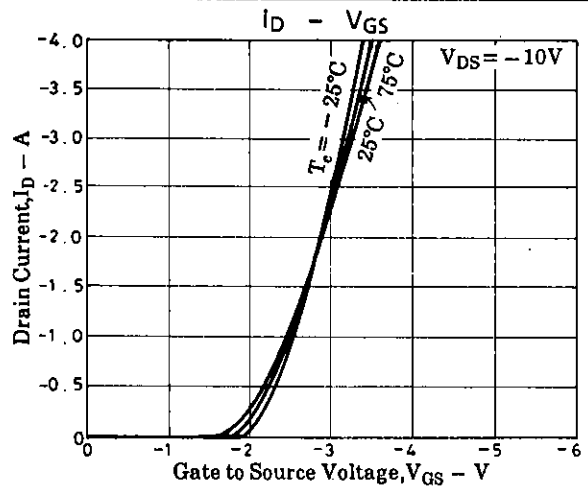
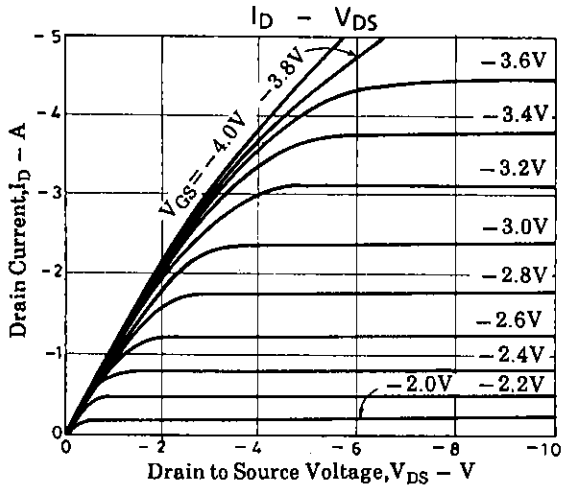
**Package Dimensions 2092A**

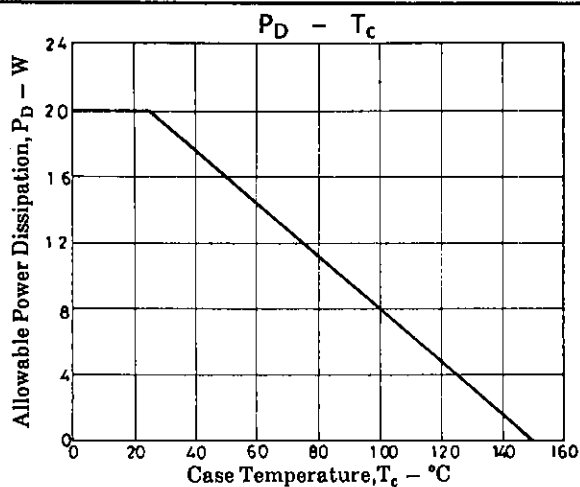
(unit : mm)



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