

SANYO

No.3762A

2SJ189

P-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

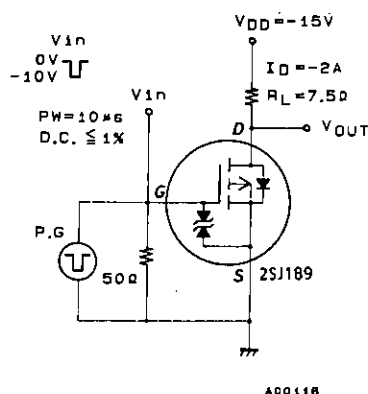
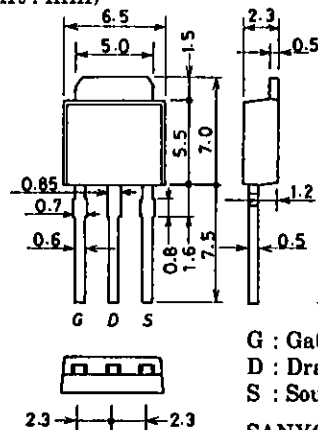
- Low ON resistance
- Very high-speed switching
- Low-voltage drive

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

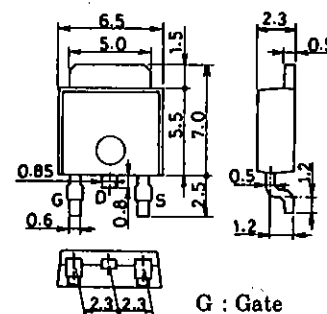
Drain to Source Voltage	V_{DSS}		-30	V
Gate to Source Voltage	V_{GSS}		± 15	V
Drain Current (DC)	I_D		-4	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	-16	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ C$	30	W
Channel Temperature	T_{ch}		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DS}$	$I_D = -1\text{mA}$, $V_{GS} = 0$	-30			V
G-S Breakdown Voltage	$V_{(BR)GS}$	$I_G = \pm 100\mu\text{A}$, $V_{DS} = 0$	± 15			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30\text{V}$, $V_{GS} = 0$			-100	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} $	$V_{DS} = -10\text{V}$, $I_D = -2\text{A}$	2.5	4		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -2\text{A}$, $V_{GS} = -10\text{V}$		85	120	$\text{m}\Omega$
	$R_{DS(on)}$	$I_D = -2\text{A}$, $V_{GS} = -4\text{V}$		120	170	$\text{m}\Omega$
Input Capacitance	C_{iss}	$V_{DS} = -10\text{V}$, $f = 1\text{MHz}$		1000		pF
Output Capacitance	C_{oss}	$V_{DS} = -10\text{V}$, $f = 1\text{MHz}$		600		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -10\text{V}$, $f = 1\text{MHz}$		220		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		15		ns
Rise Time	t_r	"		50		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		145		ns
Fall Time	t_f	"		145		ns
Diode Forward Voltage	V_{SD}	$I_S = -4\text{A}$, $V_{GS} = 0$	-1.0	-1.5		V

Switching Time Test Circuit**Package Dimensions 2083A (unit: mm)**

G : Gate
D : Drain
S : Source
SANYO : TP

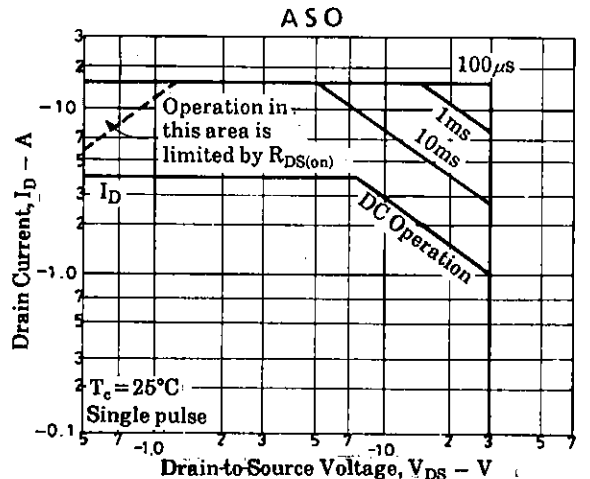
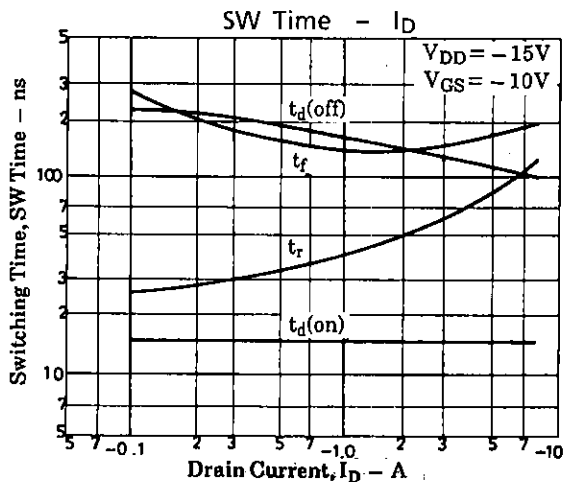
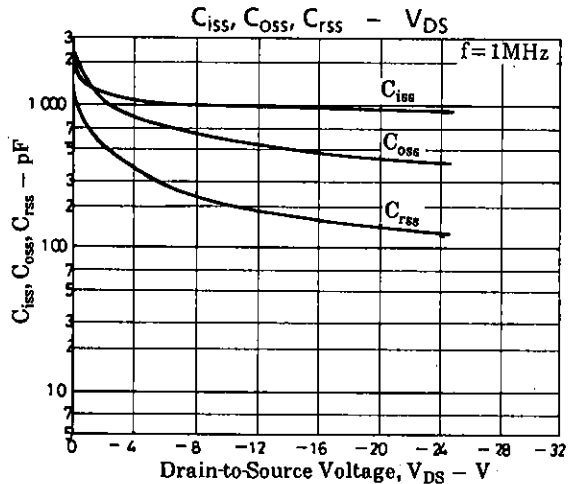
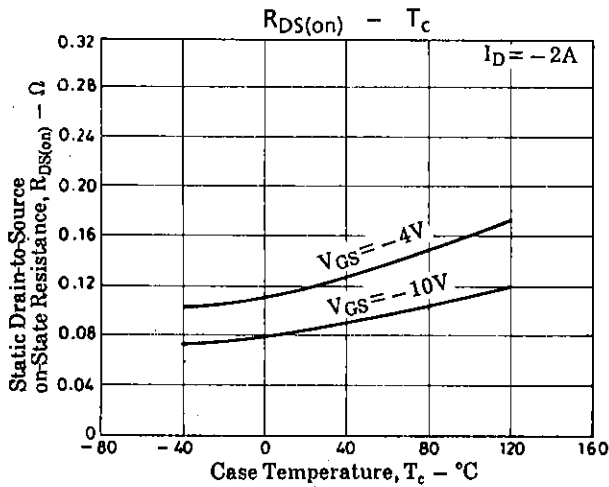
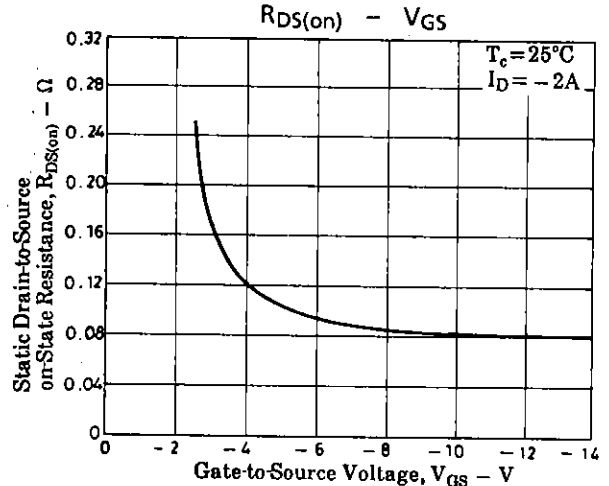
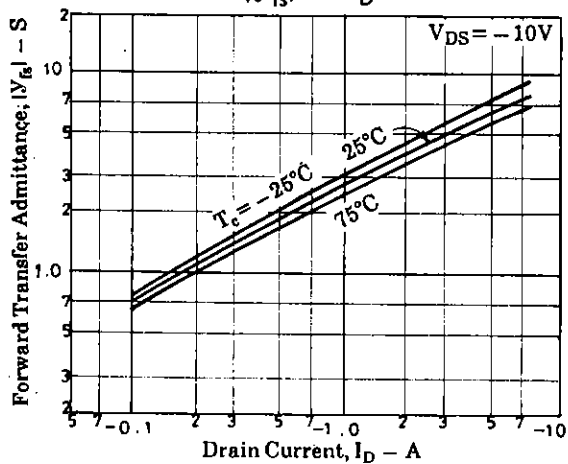
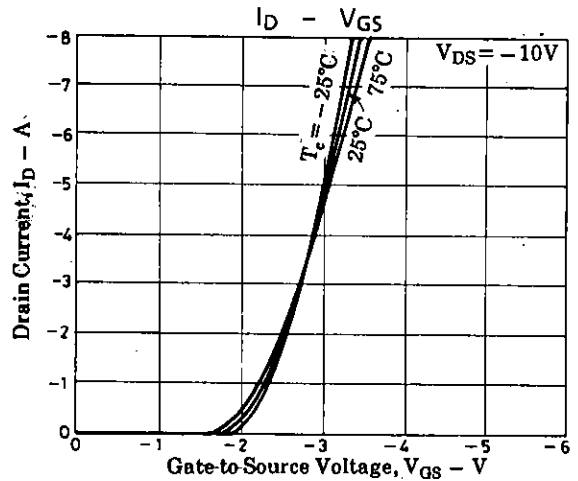
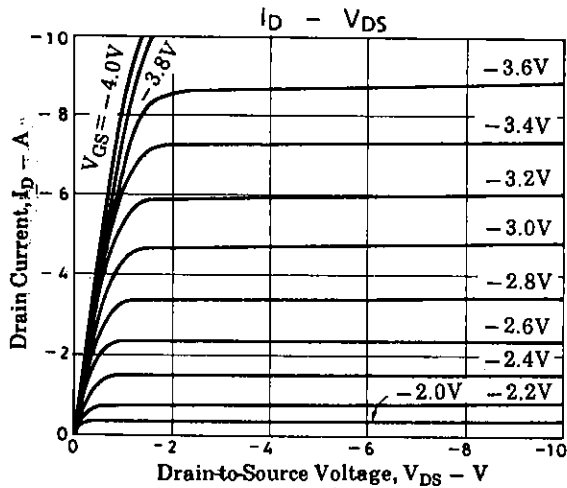
Package Dimensions 2092A (unit: mm)

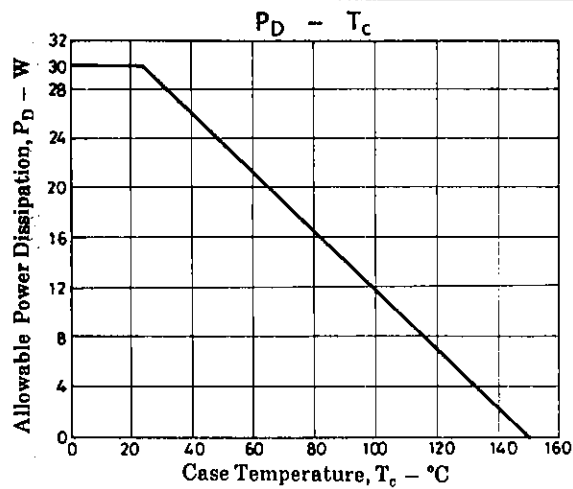
G : Gate
D : Drain
S : Source
SANYO : TP-FA

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