

SANYO

No.3763

2SJ190

P-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

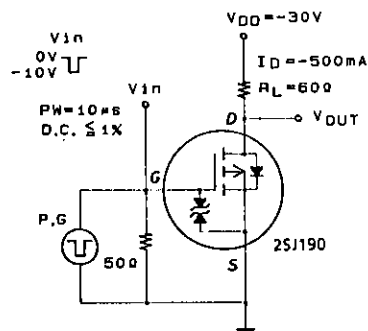
- Low ON resistance
- Very high-speed switching
- Low-voltage drive

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

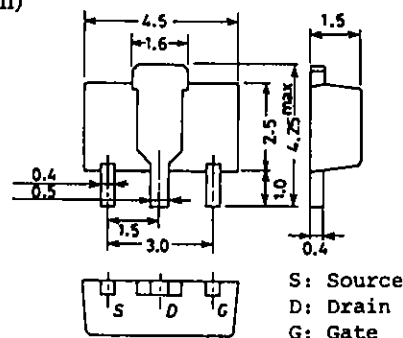
			unit
Drain to Source Voltage	V_{DS}	-60	V
Gate to Source Voltage	V_{GS}	± 15	V
Drain Current (DC)	I_D	-1	A
Drain Current (Pulse)	I_{DP}	-4	A
Allowable Power Dissipation	P_D	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$ $T_c = 25^\circ\text{C}$ (Mounted on ceramic board (250mm ² × 0.8mm))	3.5 1.5 W W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1\text{mA}, V_{GS} = 0$	-60			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60\text{V}, V_{GS} = 0$			-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} $	$V_{DS} = -10\text{V}, I_D = -500\text{mA}$	0.6	1.0		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -500\text{mA}, V_{GS} = -10\text{V}$		0.9	1.2	Ω
	$R_{DS(on)}$	$I_D = -500\text{mA}, V_{GS} = -4\text{V}$		1.2	1.6	Ω
Input Capacitance	C_{iss}	$V_{DS} = -20\text{V}, f = 1\text{MHz}$		160		pF
Output Capacitance	C_{oss}	$V_{DS} = -20\text{V}, f = 1\text{MHz}$		60		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -20\text{V}, f = 1\text{MHz}$		10		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		10		ns
Rise Time	t_r	"		13		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		70		ns
Fall Time	t_f	"		30		ns
Diode Forward Voltage	V_{SD}	$I_S = -1\text{A}, V_{GS} = 0$		-0.9		V

Switching Time Test Circuit**Package Dimensions 2062**

(unit: mm)

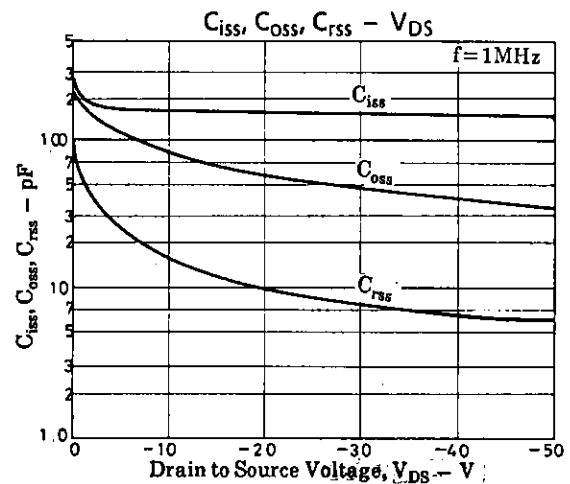
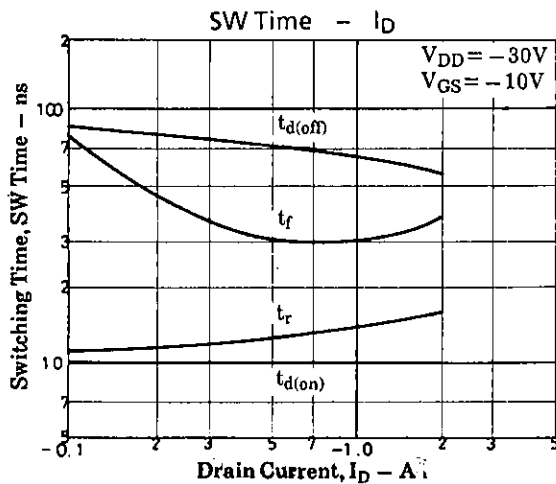
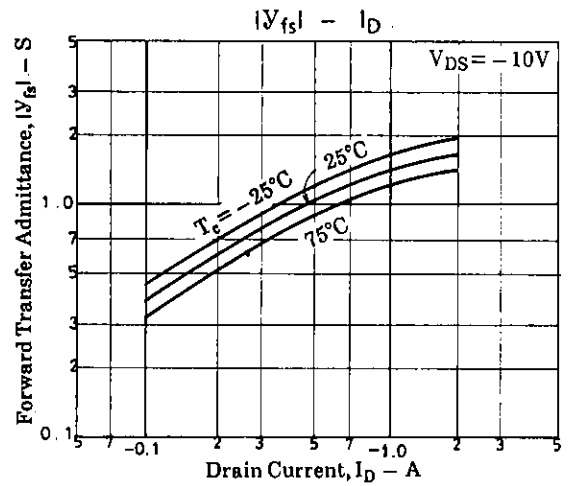
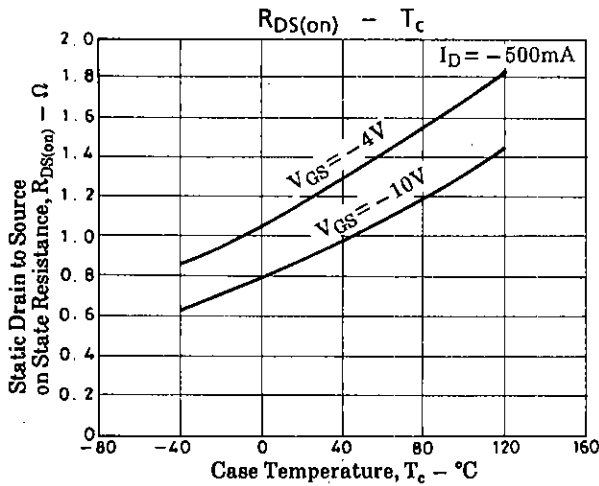
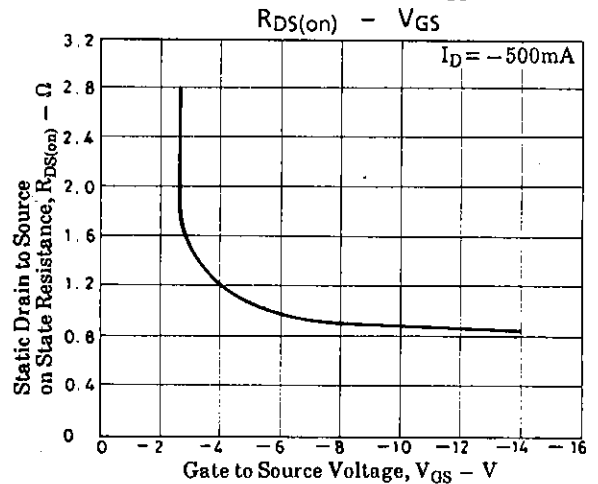
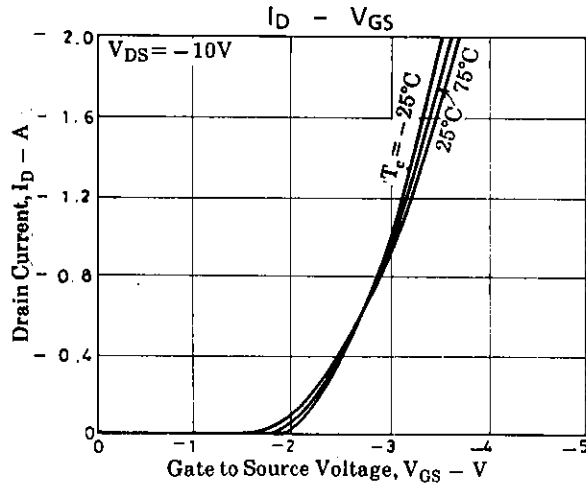
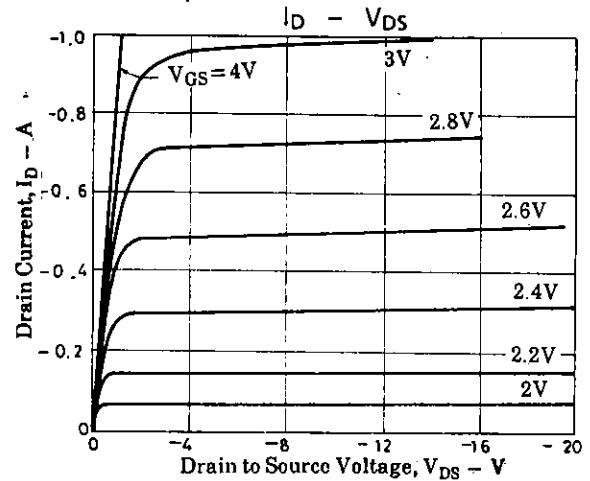
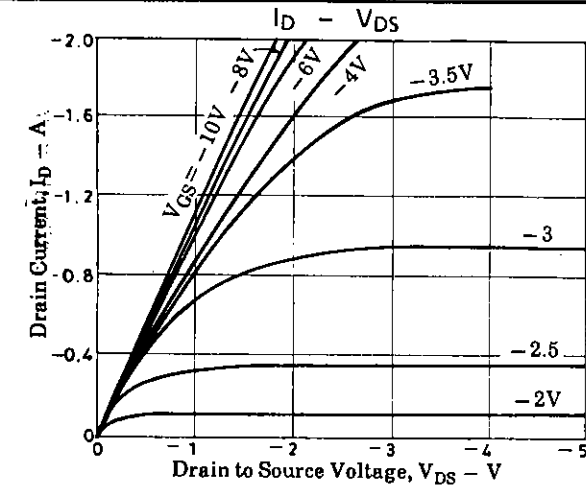


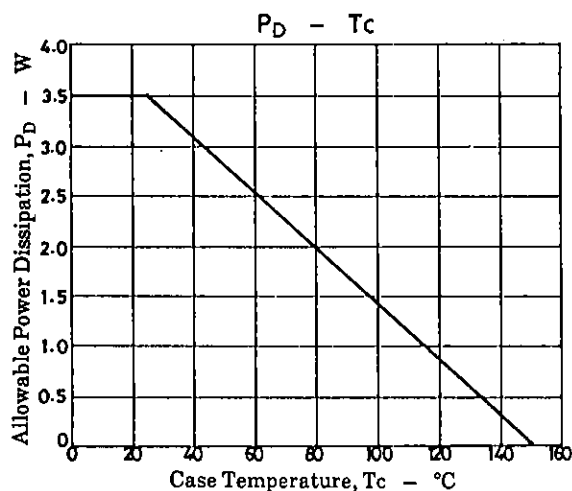
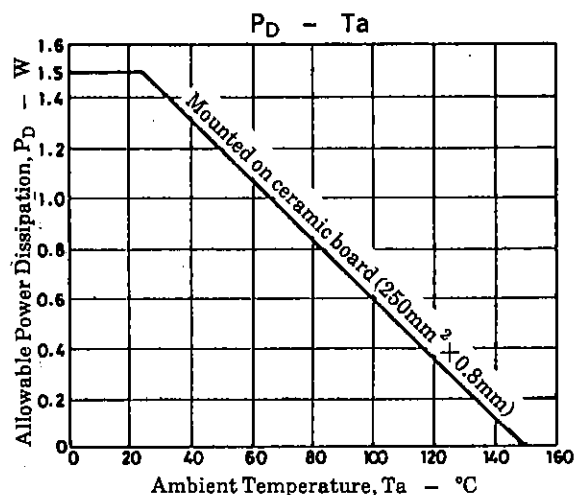
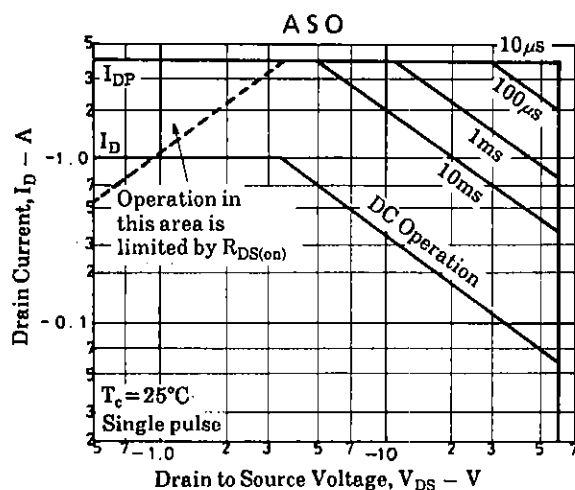
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