



2SJ277

P-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Surface mount type device making the following possible.
 - Reduction in the number of manufacturing processes for 2SJ277-applied equipment.
 - High density surface mount applications.
 - Small size of 2SJ277-applied equipment.

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

Drain to Source Voltage	V_{DSS}	-100	V
Gate to Source Voltage	V_{GSS}	± 15	V
Drain Current(DC)	I_D	-15	A
Drain Current(Pulse)	I_{DP}	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	-60 A
Allowable Power Dissipation	P_D	1.65	W
		$T_c = 25^\circ C$	70 W
Channel Temperature	T_{ch}	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

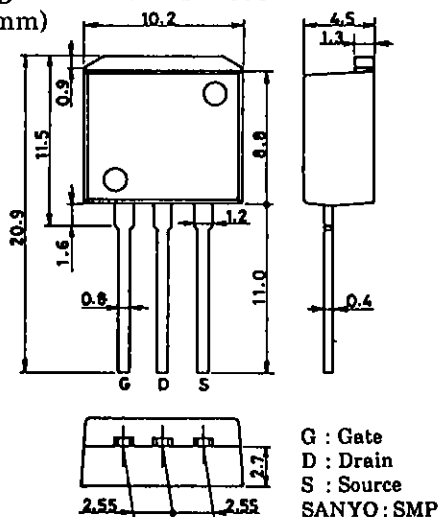
Electrical Characteristics at $T_a = 25^\circ\text{C}$

D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1\text{mA}, V_{GS} = 0$	-100		V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu\text{A}, V_{DS} = 0$	± 15		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -100\text{V}, V_{GS} = 0$		-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} $	$V_{DS} = -10\text{V}, I_D = -8\text{A}$	7.5	13	S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -8\text{A}, V_{GS} = -10\text{V}$		120 160	$\text{m}\Omega$
	$R_{DS(on)}$	$I_D = -8\text{A}, V_{GS} = -4\text{V}$		160 220	$\text{m}\Omega$

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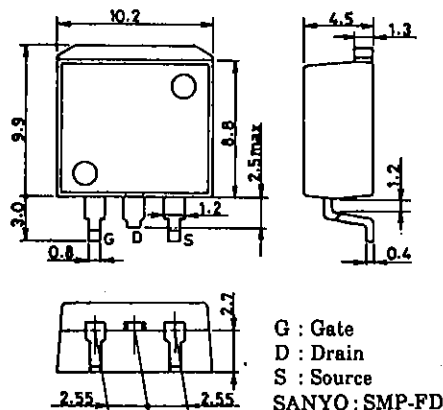
Package Dimensions 2093

(unit : mm)



Package Dimensions 2090

(unit : mm)



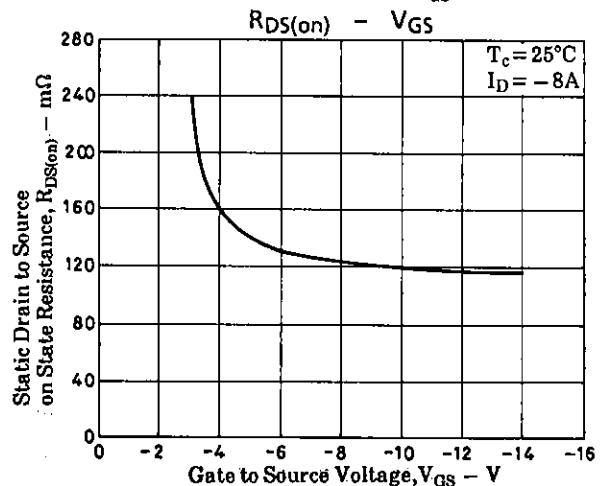
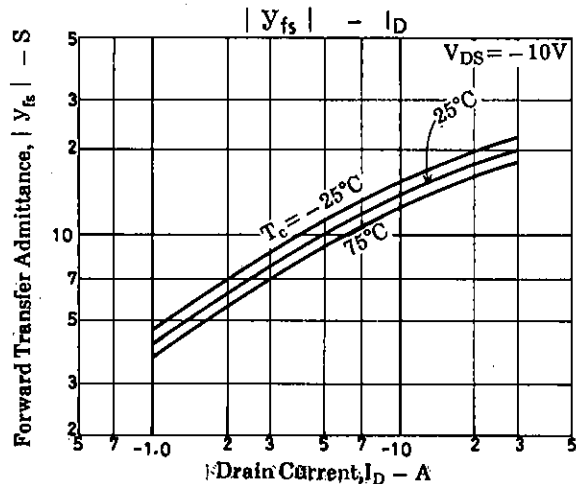
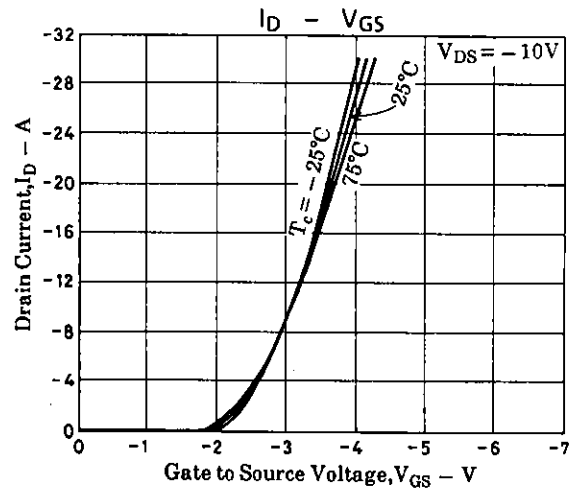
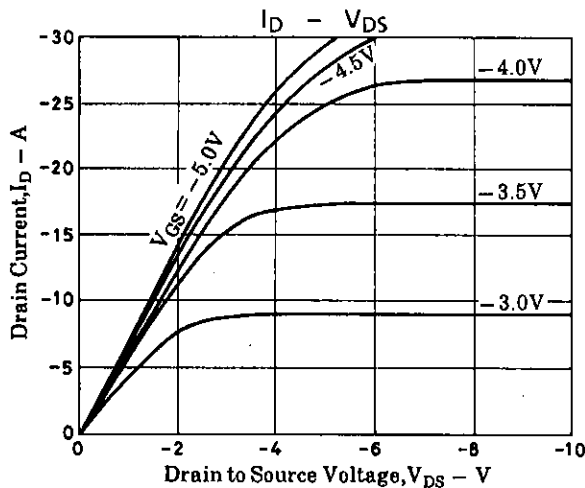
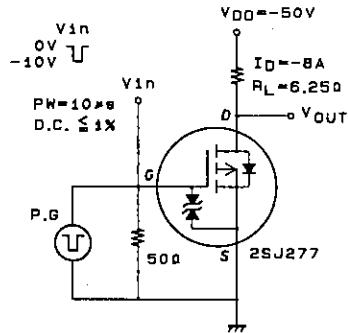
G : Gate
D : Drain
S : Source
SANYO : SMP-FD

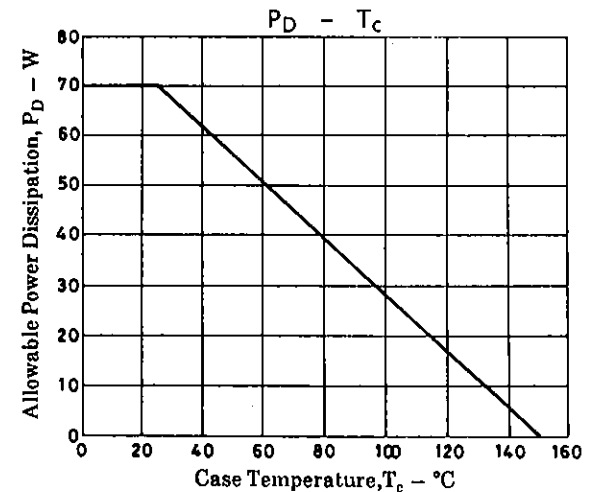
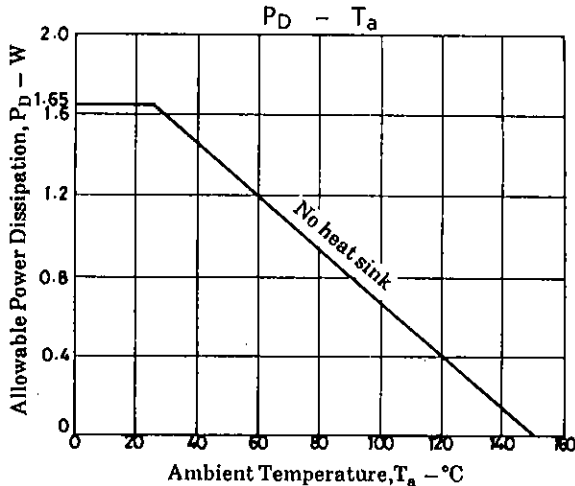
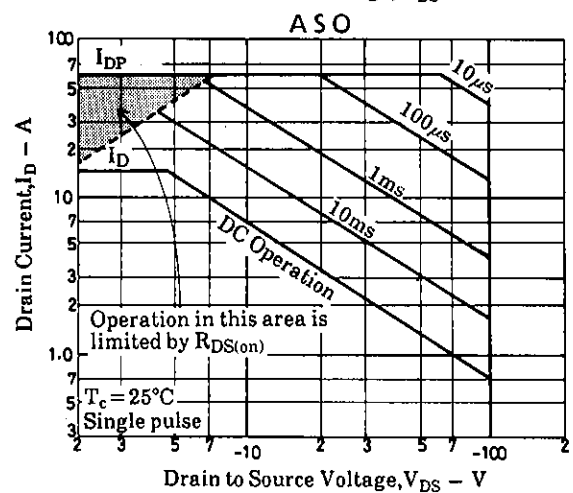
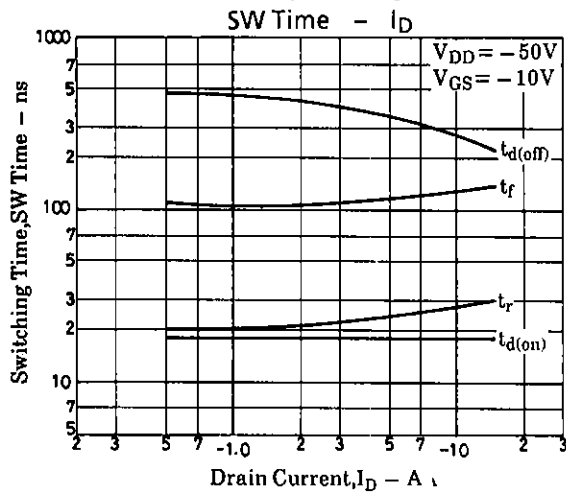
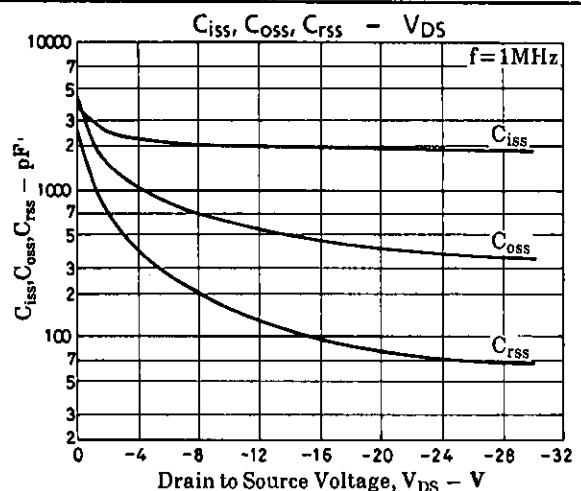
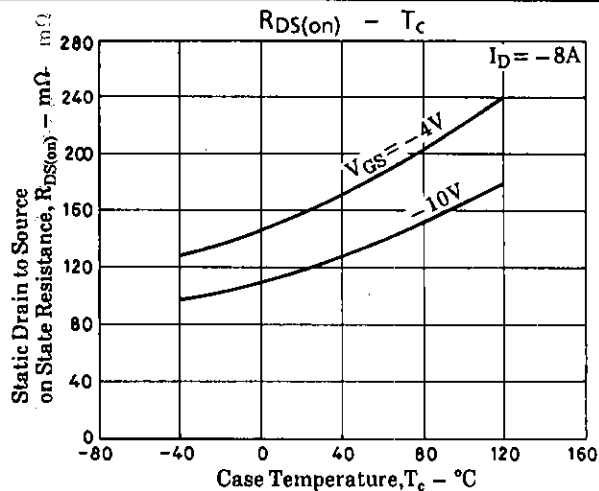
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			min	typ	max	unit
Input Capacitance	C_{iss}	$V_{DS} = -20V, f = 1MHz$		1900		pF
Output Capacitance	C_{oss}	$V_{DS} = -20V, f = 1MHz$		400		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -20V, f = 1MHz$		80		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		18		ns
Rise Time	t_r	"		25		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		300		ns
Fall Time	t_f	"		120		ns
Diode Forward Voltage	V_{SD}	$I_S = -15A, V_{GS} = 0$	-1.0	-1.5		V

Switching Time Test Circuit





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 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
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