SANYO

No.4220

2SJ284

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

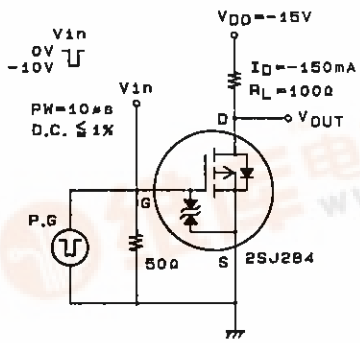
				unit
Drain to Source Voltage	V_{DSS}		−30	V
Gate to Source Voltage	V_{GSS}		±15	V
Drain Current(DC)	I_D		−300	mA
Drain Current(Pulse)	I_{DP}	PW≦10μs, duty cycle≦1%	−1.2	A
Allowable Power Dissipation	P_D		250	mW
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	−30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0$			−100	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12V, V_{DS} = 0$			±10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	−1.0		−2.0	V
Forward Transfer Admittance	$\lvert y_{fs} \rvert$	$V_{DS} = -10V, I_D = -150mA$	200	350		mS
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -150mA, V_{GS} = -10V$		1.5	2.2	Ω
	$R_{DS(on)}$	$I_D = -150mA, V_{GS} = -4V$		2.2	3.3	Ω
Input Capacitance	Ciss	$V_{DS} = -10V, f = 1MHz$		50		pF
Output Capacitance	Coss	$V_{DS} = -10V, f = 1MHz$		35		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -10V, f = 1MHz$		10		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		7		ns
Rise Time	t_r	〃		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	〃		40		ns
Fall Time	t_f	〃		30		ns
Diode Forward Voltage	V_{SD}	$I_S = -300mA, V_{GS} = 0$		−1		V

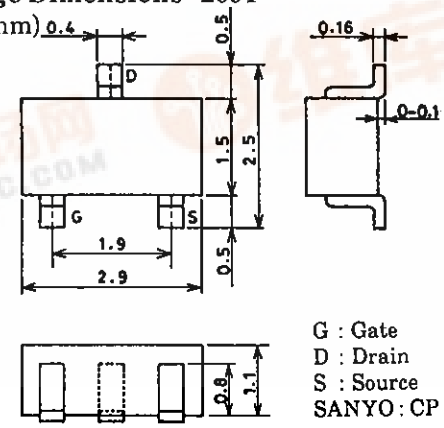
Marking : AM

Switching Time Test Circuit



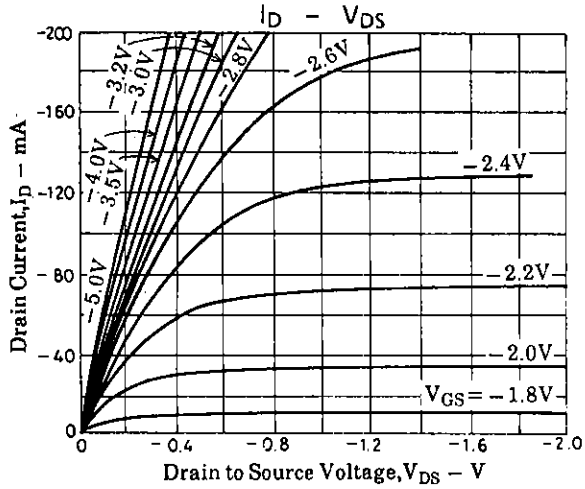
Package Dimensions 2091

(unit : mm)

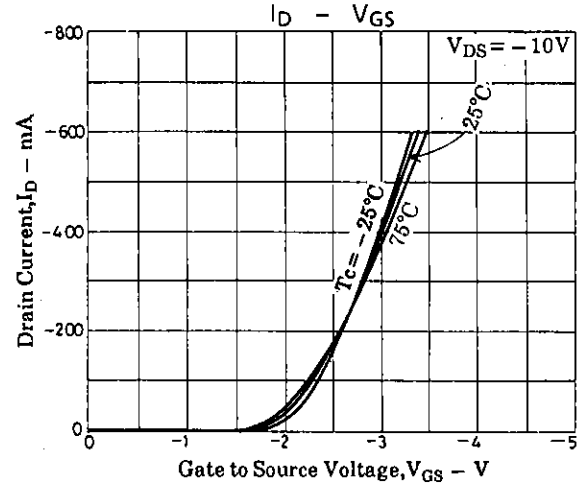


G : Gate
D : Drain
S : Source
SANYO : CP

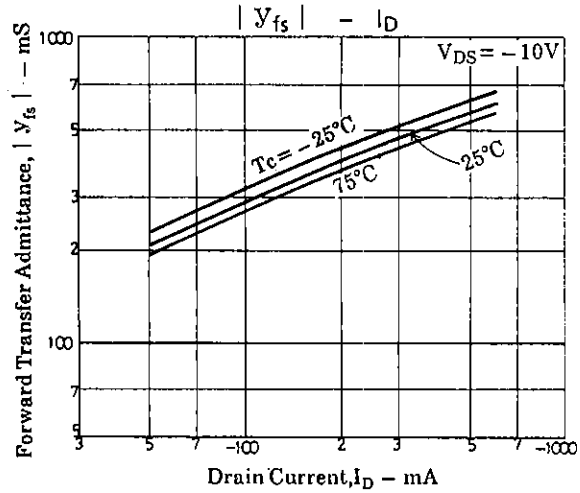
I_D – V_{DS}



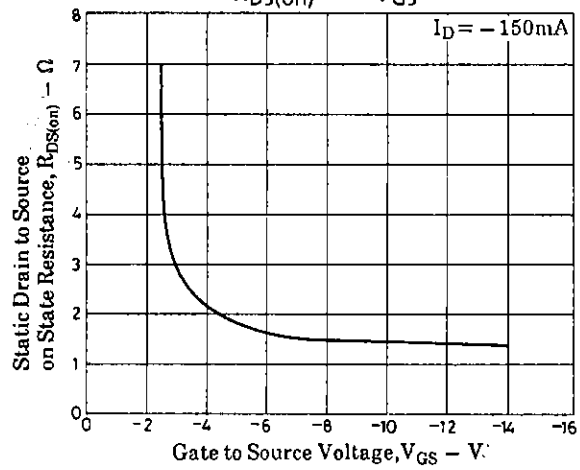
I_D – V_{GS}



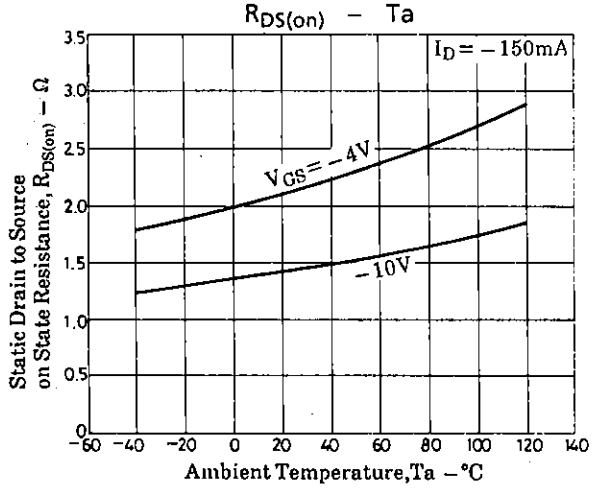
$|y_{fs}|$ – I_D



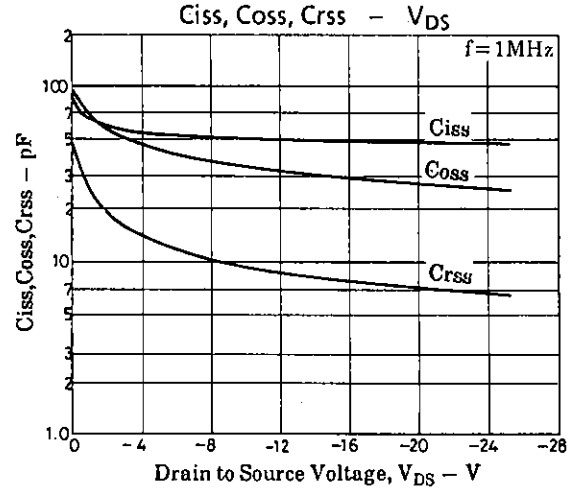
$R_{DS(on)}$ – V_{GS}



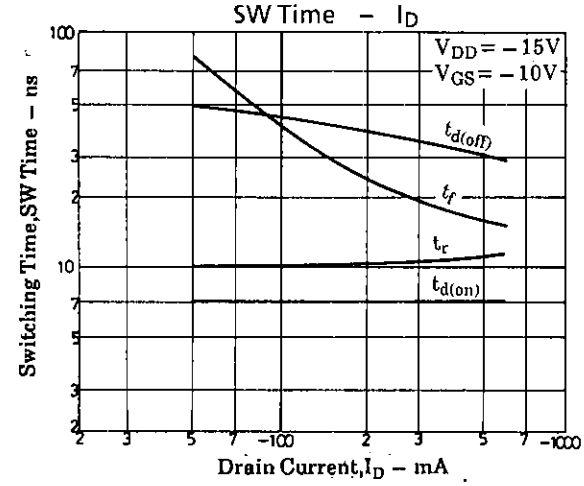
$R_{DS(on)}$ – Ta



Ciss, Coss, Crss – V_{DS}



SW Time – I_D



P_D – Ta