Ordering number: EN3766

SANYO

No.3766

2SJ193

P-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

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

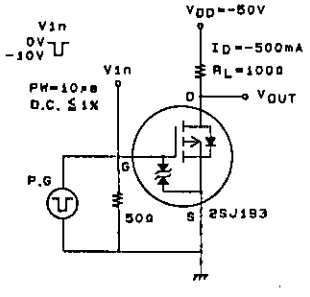
Absolute Maximum Ratings at Ta = 25°C

				unit
Drain to Source Voltage	V_{DSS}		−100	V
Gate to Source Voltage	V_{GSS}		±15	V
Drain Current(DC)	I_D		−1	A
Drain Current(Pulse)	I_{DP}	PW≦10μs, duty cycle≦1%	−4	A
Allowable Power Dissipation	P_D	T_c=25°C	3.5	W
		Mounted on ceramic board (250mm²×0.8mm)	1.5	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

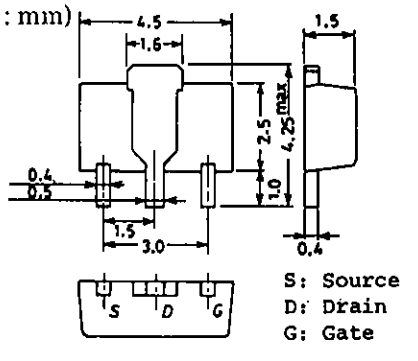
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	I_D=−1mA, V_{GS}=0	−100			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=−100V, V_{GS}=0			−100	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±12V, V_{DS}=0			±10	μA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=−10V, I_D=−1mA	−1.0		−2.0	V
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=−10V, I_D=−500mA	0.6	1.0		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	I_D=−500mA, V_{GS}=−10V		1.8	2.4	Ω
	$R_{DS(on)}$	I_D=−500mA, V_{GS}=−4V		2.4	3.5	Ω
Input Capacitance	Ciss	V_{DS}=−20V, f=1MHz		160		pF
Output Capacitance	Coss	V_{DS}=−20V, f=1MHz		40		pF
Reverse Transfer Capacitance	Crss	V_{DS}=−20V, f=1MHz		6		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=−1A, V_{GS}=0		−0.9		V

Switching Time Test Circuit



Package Dimensions 2062

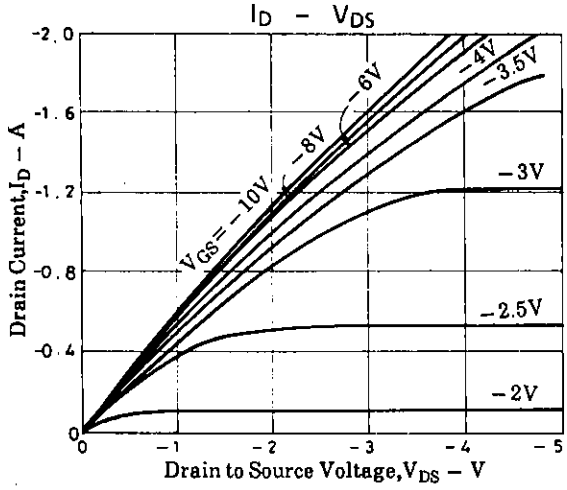
(unit : mm)



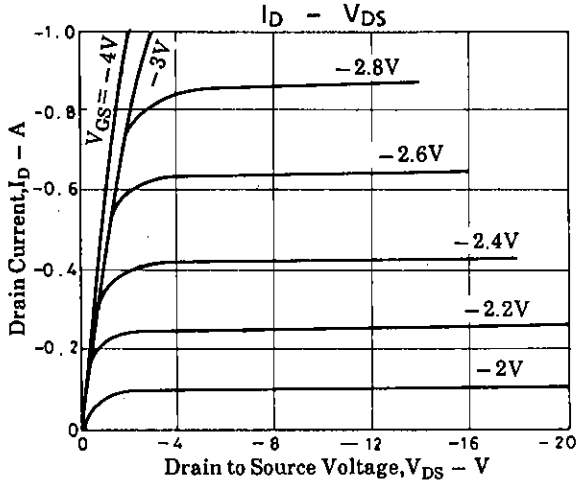
S: Source
D: Drain
G: Gate

SANYO: PCP

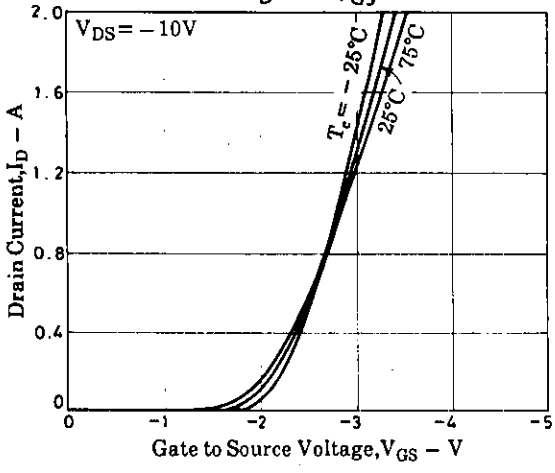
I_D – V_{DS}



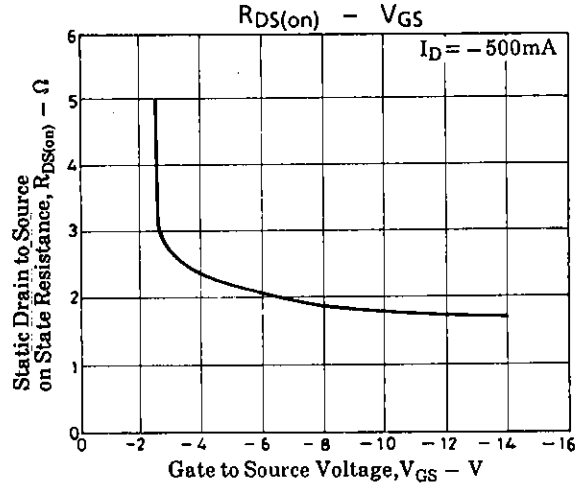
I_D – V_{DS}



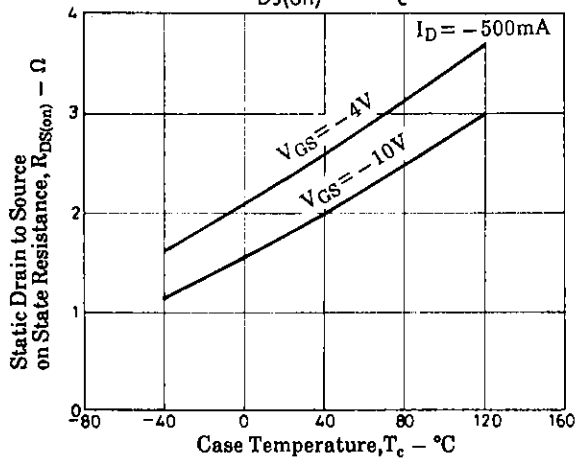
I_D – V_{GS}



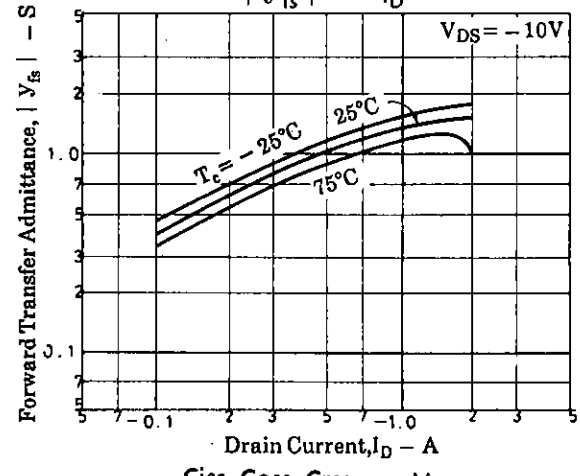
$R_{DS(on)}$ – V_{GS}



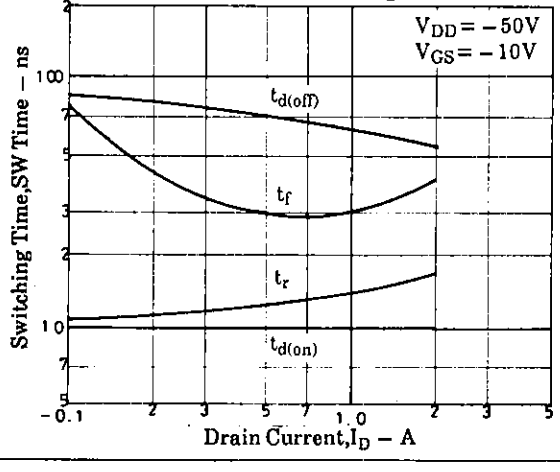
$R_{DS(on)}$ – T_c



$|y_{fs}|$ – I_D



SW Time – I_D



Ciss, Coss, Crss – V_{DS}