Ordering number: EN3771A

SANYO

No.3771A

2SK1470

N-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

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

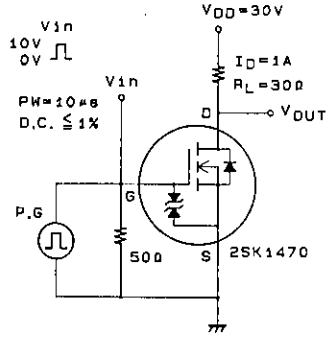
Absolute Maximum Ratings at Ta = 25°C

				unit
Drain to Source Voltage	V_{DSS}		60	V
Gate to Source Voltage	V_{GSS}		±15	V
Drain Current(DC)	I_D		2	A
Drain Current(Pulse)	I_{DP}	PW≦10μs, duty cycle≦1%	8	A
Allowable Power Dissipation	P_D	Tc = 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

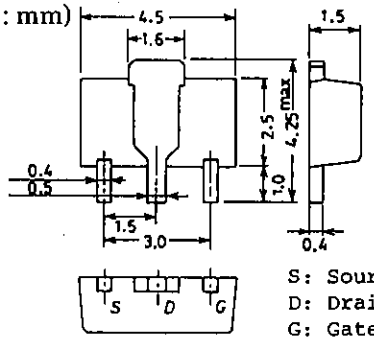
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	I_D = 1mA, V_{GS} = 0	60			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS} = 60V, V_{GS} = 0			100	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS} = ±12V, V_{DS} = 0			±10	μA
Cutoff Voltage	$V_{GS(off)}$	V_{DS} = 10V, I_D = 1mA	1.0		2.0	V
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS} = 10V, I_D = 1A	1.2	2.0		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	I_D = 1A, V_{GS} = 10V		0.35	0.45	Ω
	$R_{DS(on)}$	I_D = 1A, V_{GS} = 4V		0.45	0.6	Ω
Input Capacitance	Ciss	V_{DS} = 20V, f = 1MHz		150		pF
Output Capacitance	Coss	V_{DS} = 20V, f = 1MHz		60		pF
Reverse Transfer Capacitance	Crss	V_{DS} = 20V, f = 1MHz		12		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		6		ns
Rise Time	t_r	〃		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	〃		60		ns
Fall Time	t_f	〃		20		ns
Diode Forward Voltage	V_{SD}	I_S = 2A, V_{GS} = 0		1.0		V

Switching Time Test Circuit



Package Dimensions 2062

(unit : mm)



S: Source
D: Drain
G: Gate

SANYO: PCP

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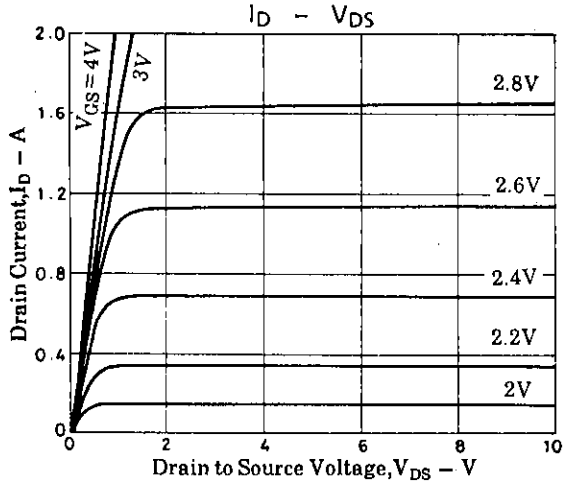
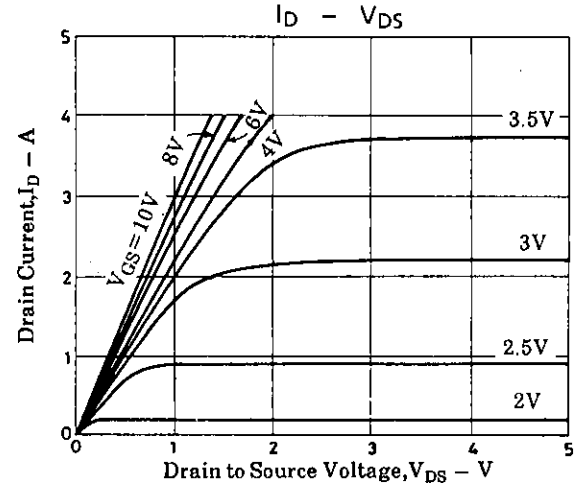
TOKYO OFFICE Tokyo Bldg., 1-10,1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

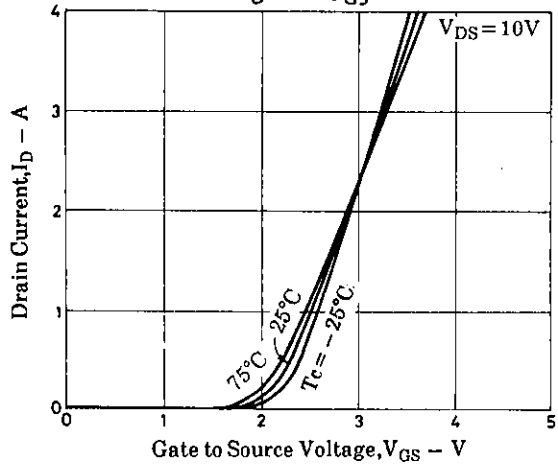
I_D – V_{DS}



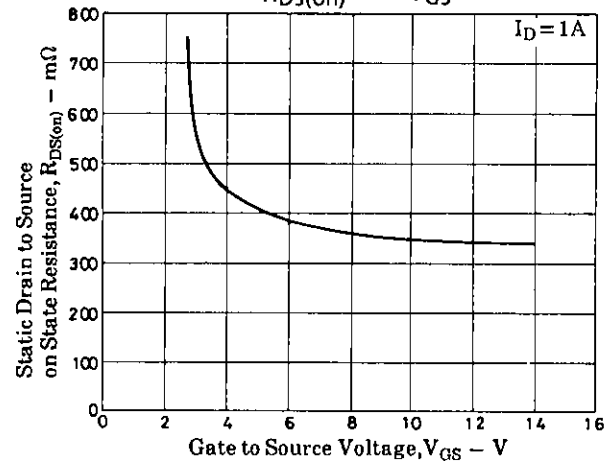
I_D – V_{DS}



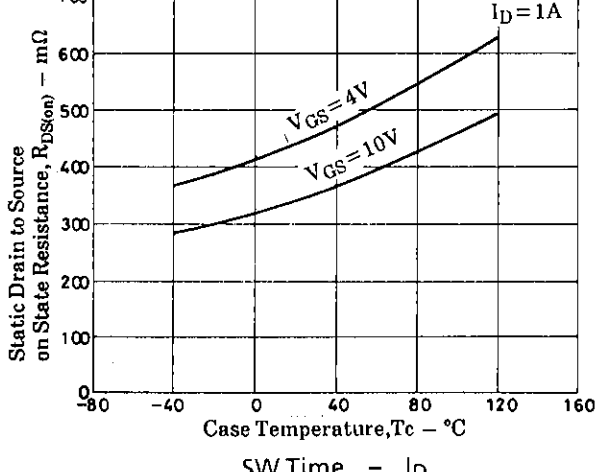
I_D – V_{GS}



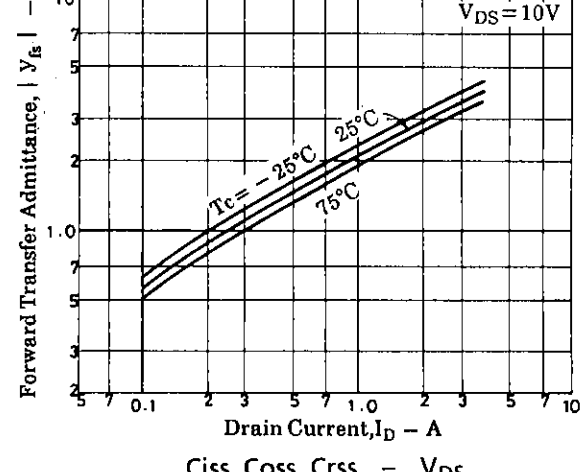
$R_{DS(on)}$ – V_{GS}



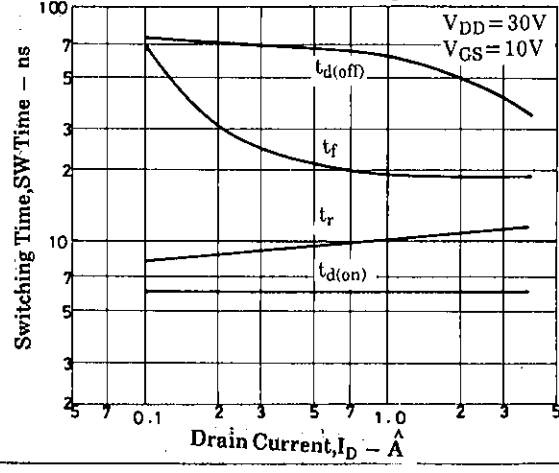
$R_{DS(on)}$ – Tc



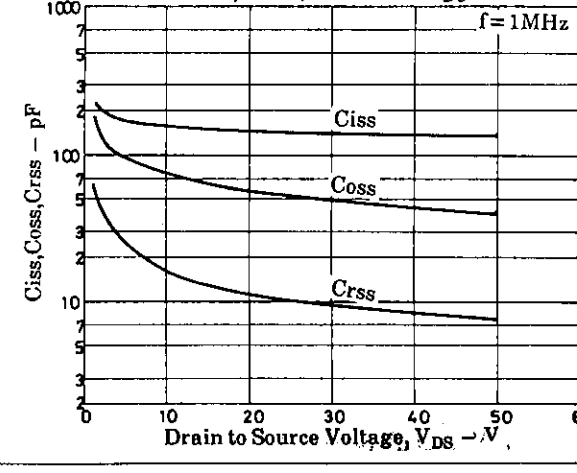
$|y_{fs}|$ – I_D



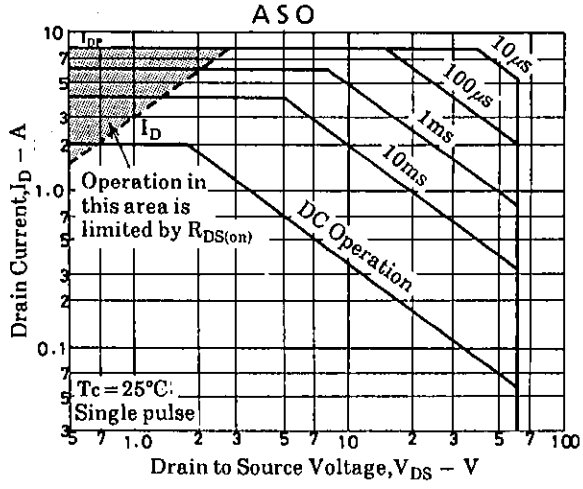
SW Time – I_D



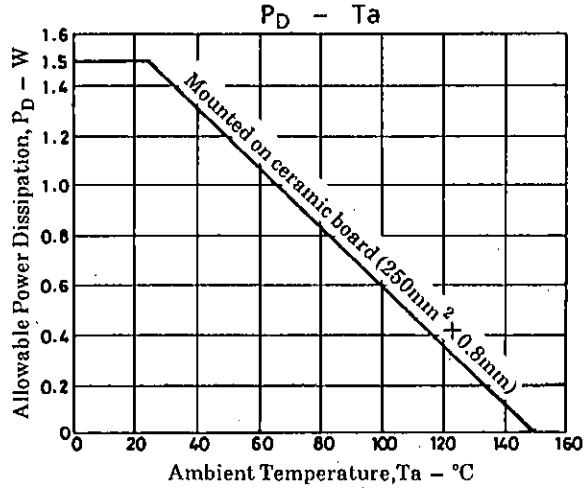
Ciss, Coss, Crss – V_{DS}



ASO



P_D – Ta



P_D – Tc