Ordering number: EN4601A

SANYO

No.4601A

2SK2161

N-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

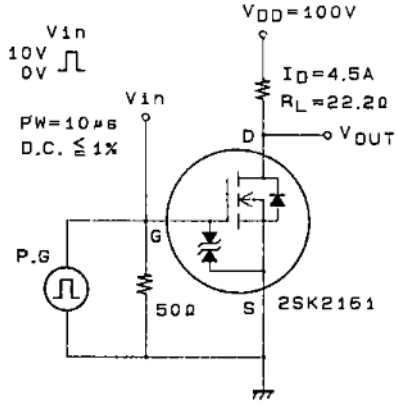
Absolute Maximum Ratings at Ta = 25°C

				unit
Drain-to-Source Voltage	V_{DSS}		200	V
Gate-to-Source Voltage	V_{GSS}		±20	V
Drain Current(DC)	I_D		9	A
Drain Current(Pulse)	I_{DP}	PW≦10μs, duty cycle≦1%	36	A
Allowable Power Dissipation	P_D		2.0	W
		Tc=25°C	25	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics at Ta = 25°C

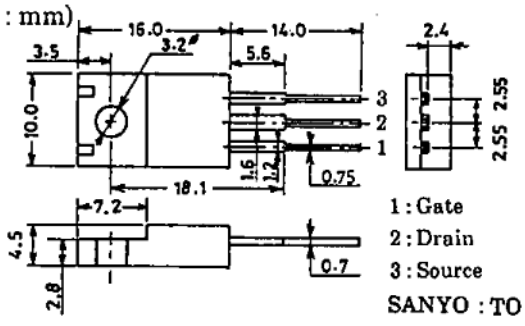
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0	200			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	I_G=±100μA, V_{DS}=0	±20			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=200V, V_{GS}=0			100	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±16V, V_{DS}=0			±10	μA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1mA	1.5		2.5	V
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=10V, I_D=4.5A	3.5	6		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	I_D=4.5A, V_{GS}=10V		250	350	mΩ
Input Capacitance	Ciss	V_{DS}=20V, f=1MHz		700		pF
Output Capacitance	Coss	V_{DS}=20V, f=1MHz		140		pF
Reverse Transfer Capacitance	Crss	V_{DS}=20V, f=1MHz		55		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		14		ns
Rise Time	t_r	〃		19		ns
Turn-OFF Delay Time	$t_{d(off)}$	〃		200		ns
Fall Time	t_f	〃		80		ns
Diode Forward Voltage	V_{SD}	I_S=9A, V_{GS}=0		1.0	1.5	V

Switching Time Test Circuit



Package Dimensions 2063A

(unit: mm)

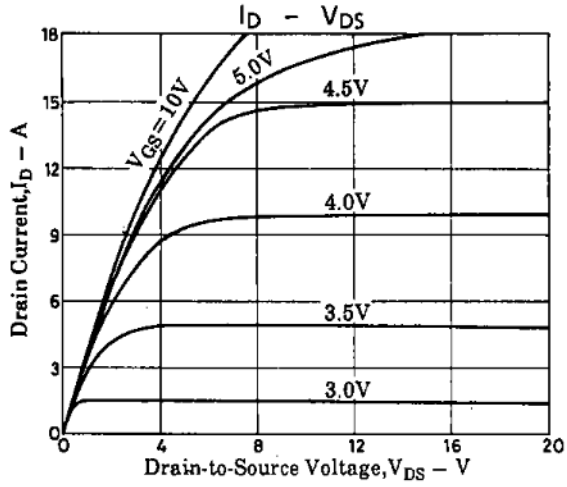


1: Gate
2: Drain
3: Source

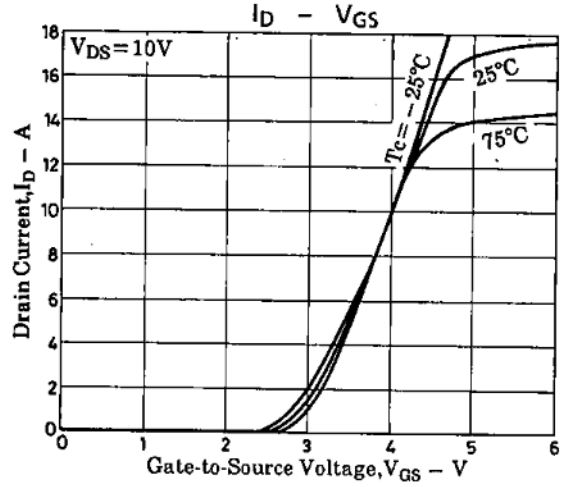
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TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

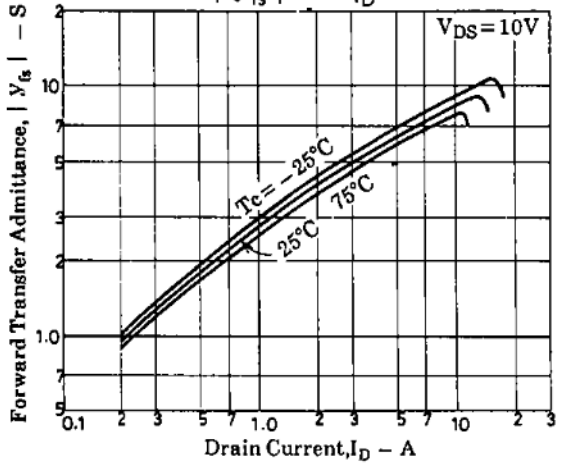
I_D – V_{DS}



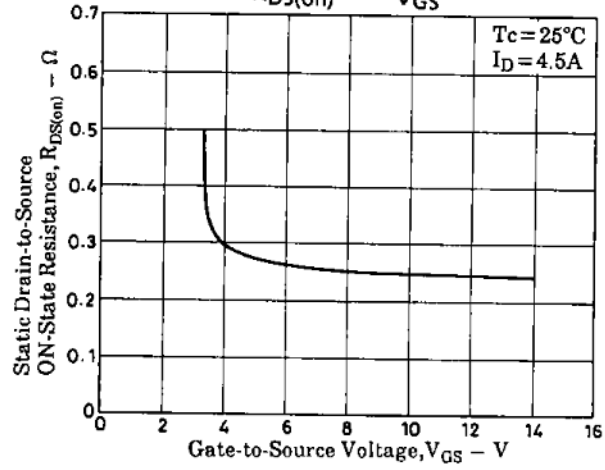
I_D – V_{GS}



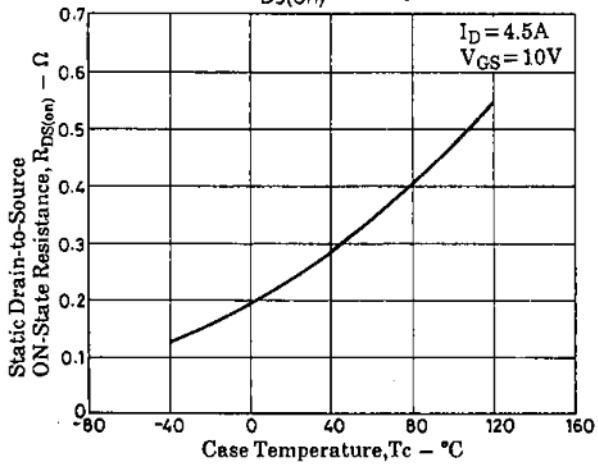
$|y_{fs}|$ – I_D



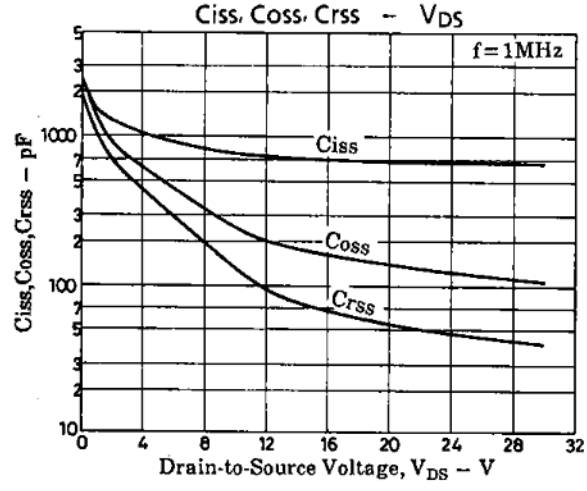
$R_{DS(on)}$ – V_{GS}



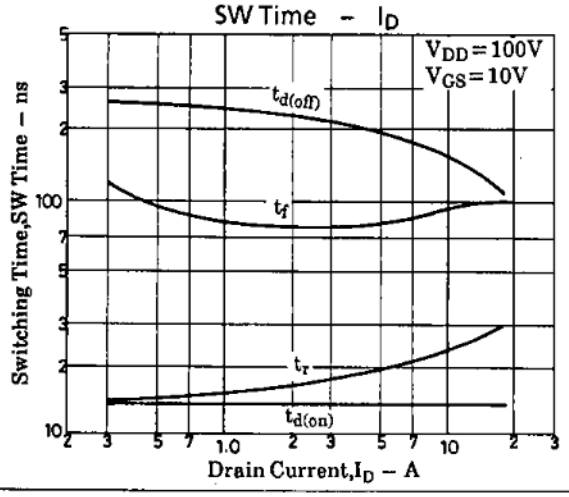
$R_{DS(on)}$ – Tc



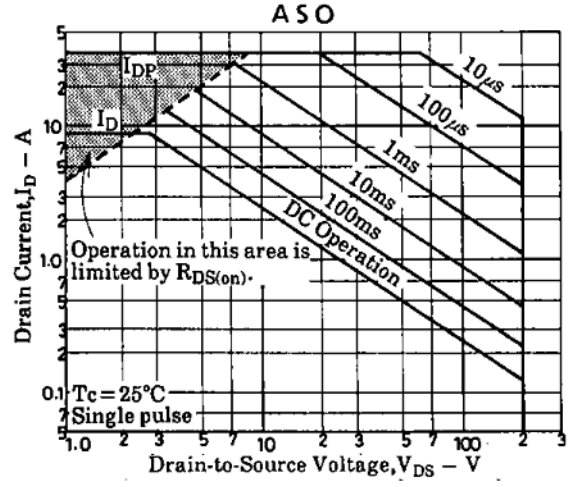
Ciss, Coss, Crss – V_{DS}

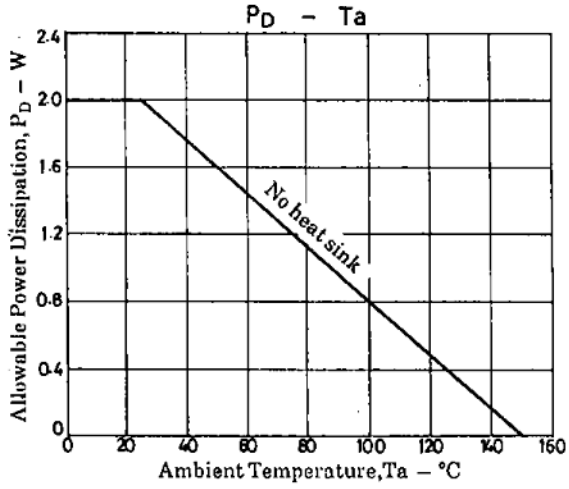


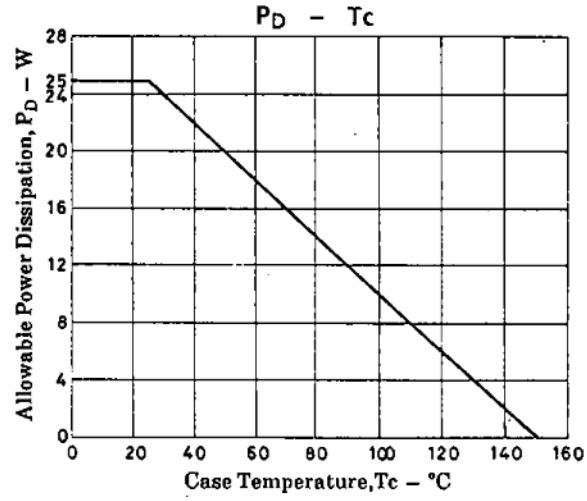
SW Time – I_D



A S O







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