

**SANYO**

No.3775A

**2SK1474**

N-Channel MOS Silicon FET

Very High-Speed  
Switching Applications**Features**

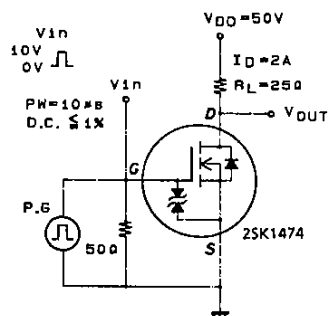
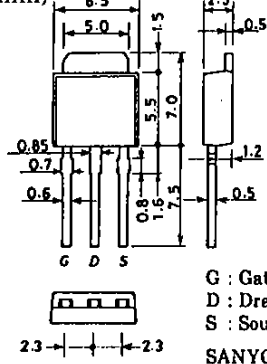
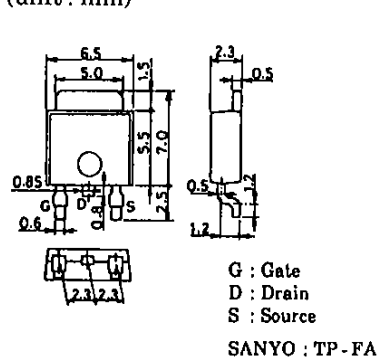
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

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

			unit
Drain to Source Voltage	$V_{DS}$	100	V
Gate to Source Voltage	$V_{GS}$	$\pm 15$	V
Drain Current(DC)	$I_D$	4	A
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu s, \text{duty cycle} \leq 1\%$	16 A
Allowable Power Dissipation	$P_D$	$T_c = 25^\circ\text{C}$	20 W
Channel Temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

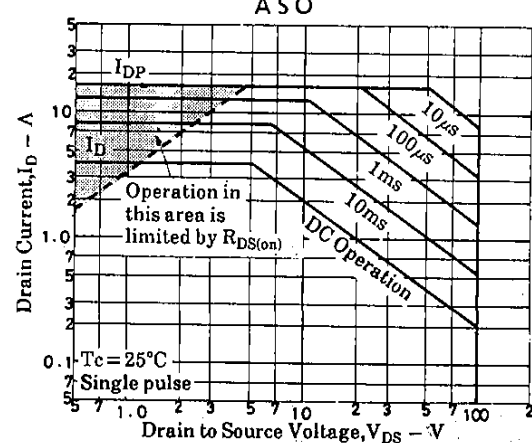
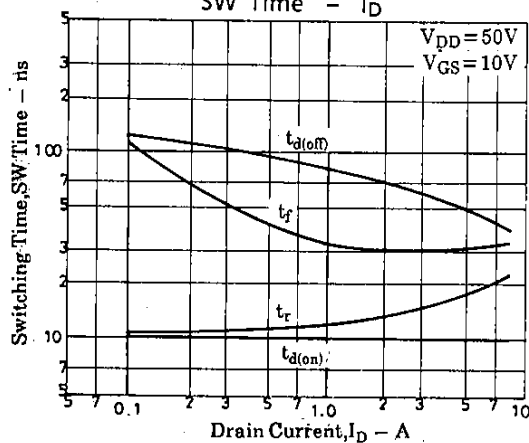
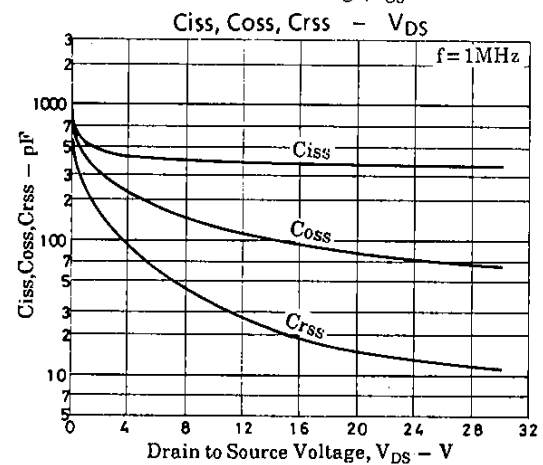
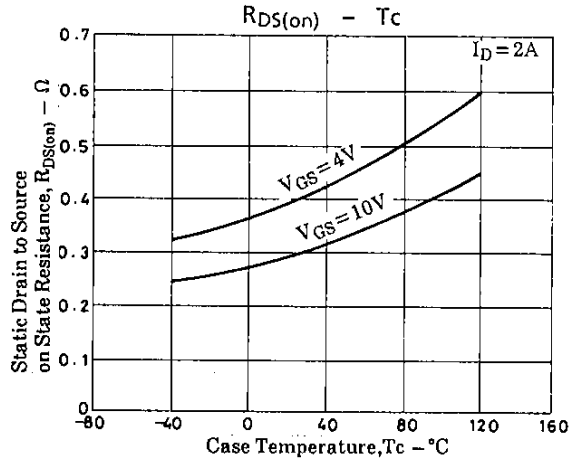
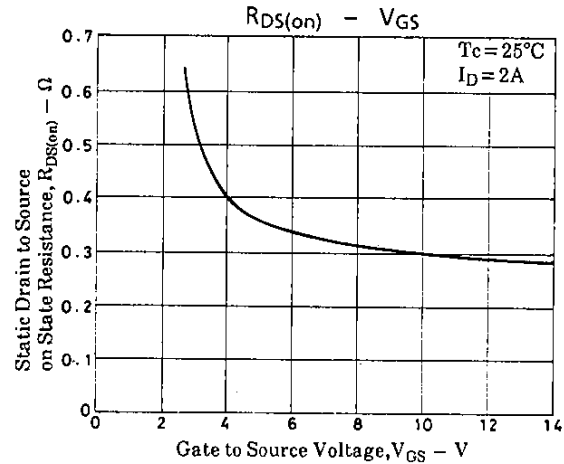
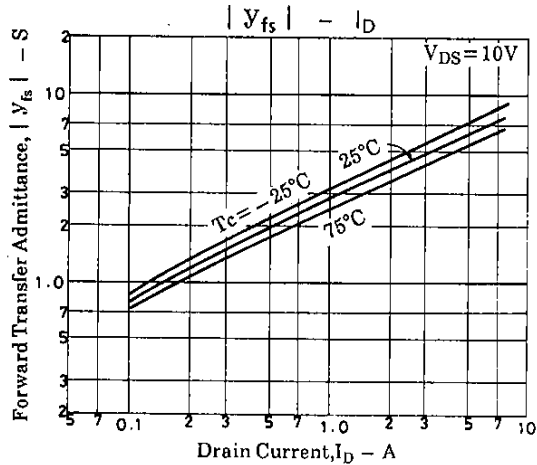
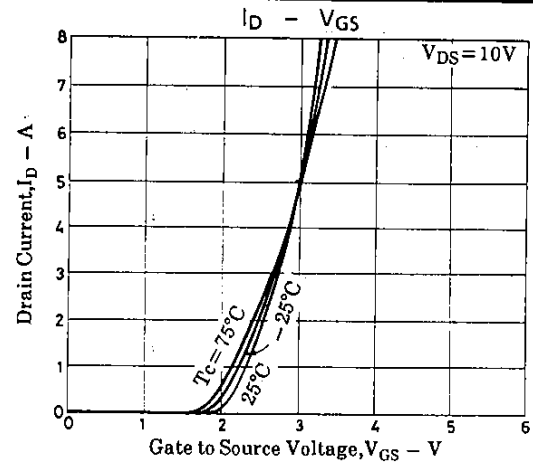
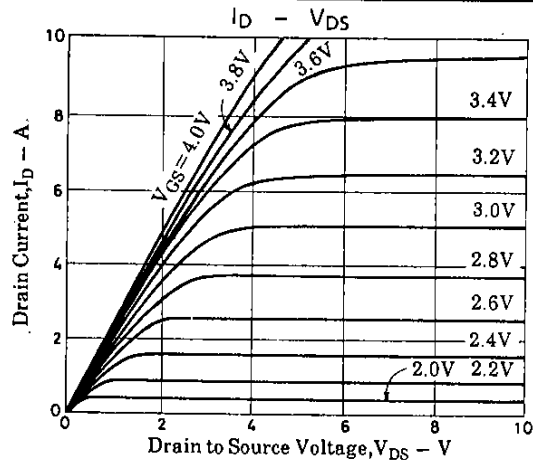
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

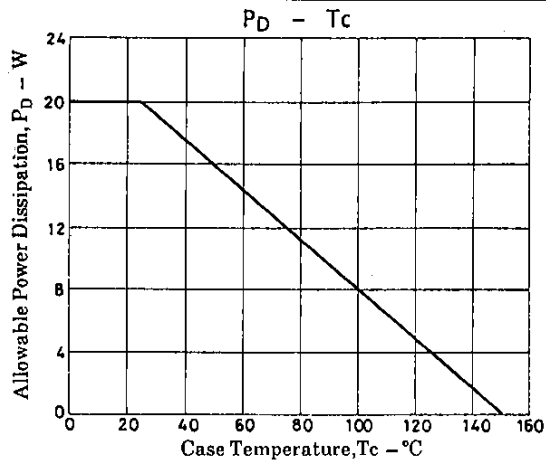
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	100			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	$\pm 15$			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 100\text{V}, V_{GS} = 0$			100	$\mu A$
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			$\pm 10$	$\mu A$
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} $	$V_{DS} = 10\text{V}, I_D = 2\text{A}$	2.5	4		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 2\text{A}, V_{GS} = 10\text{V}$		0.3	0.4	$\Omega$
	$R_{DS(on)}$	$I_D = 2\text{A}, V_{GS} = 4\text{V}$		0.4	0.55	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		380		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		80		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		15		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	$V_{SD}$	$I_S = 4\text{A}, V_{GS} = 0$	1.0	1.5		V

**Switching Time Test Circuit****Package Dimensions 2083A**  
(unit: mm)**Package Dimensions 2092A**  
(unit: mm)**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

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