

<b>SANYO</b>	No.4601A	<b>2SK2161</b>
		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.

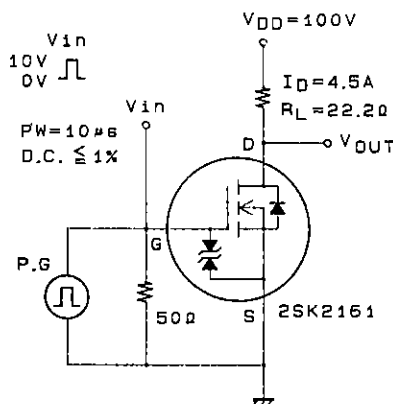
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain-to-Source Voltage	$V_{DS}$	200	V
Gate-to-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current(DC)	$I_D$	9	A
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	36
Allowable Power Dissipation	$P_D$	2.0	W
		$T_c = 25^\circ C$	25
Channel Temperature	$T_{ch}$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ C$

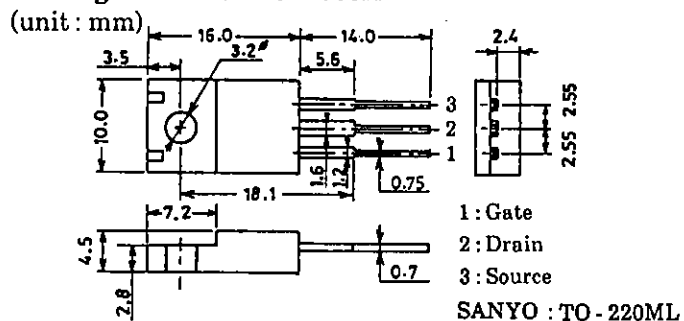
**Electrical Characteristics at Ta = 25°C**

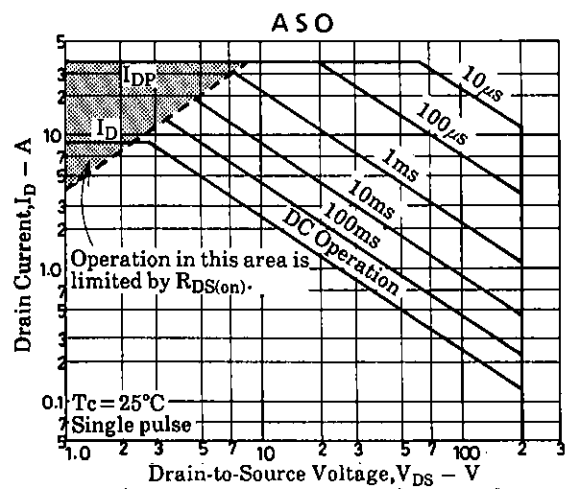
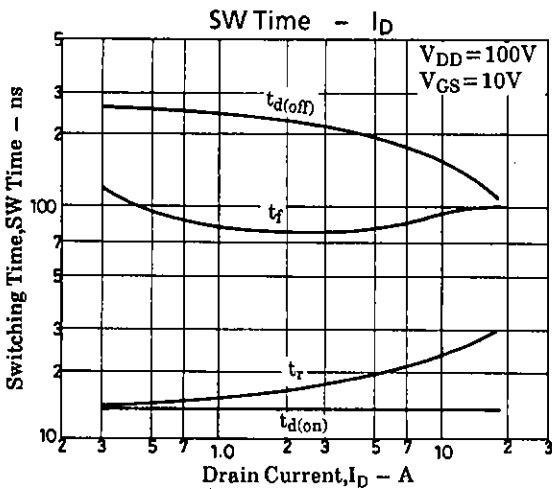
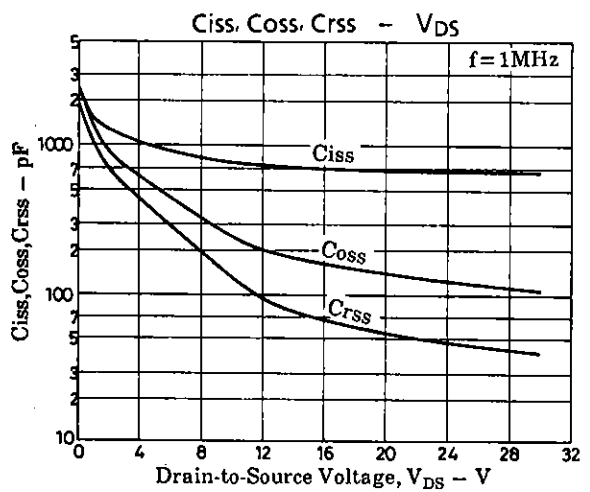
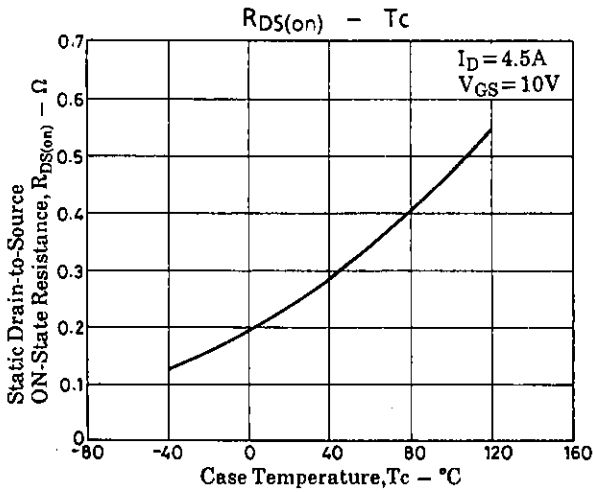
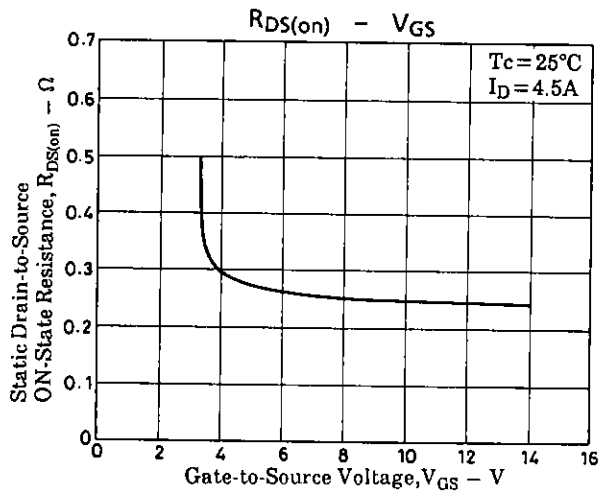
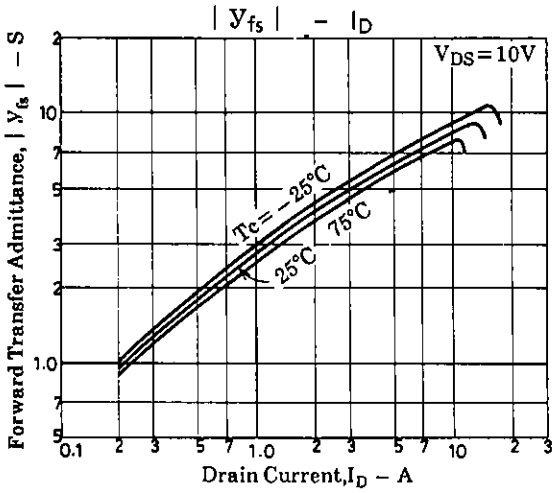
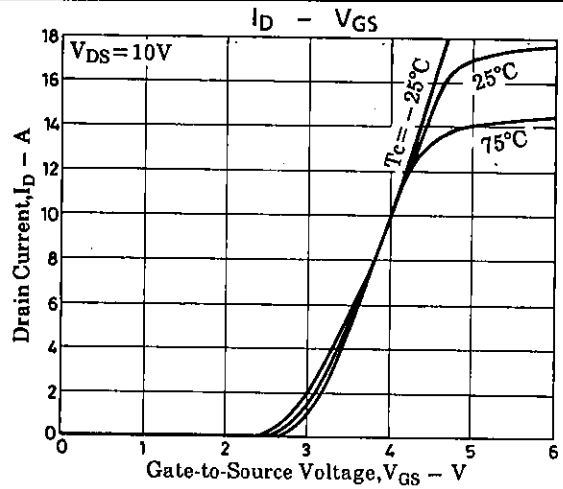
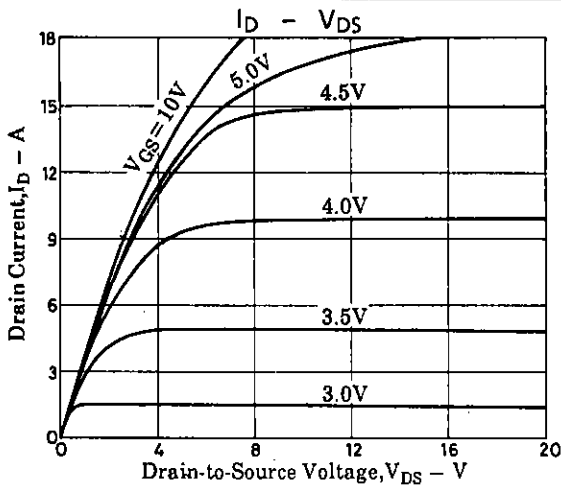
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	200			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	$\pm 20$			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 200V, V_{GS} = 0$			100	$\mu A$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 16V, V_{DS} = 0$			$\pm 10$	$\mu A$
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	m $\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 20V, f = 1MHz$		700		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V, f = 1MHz$		140		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V, f = 1MHz$		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

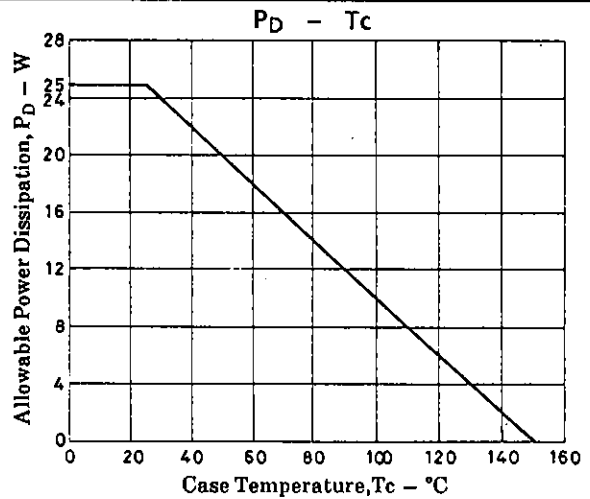
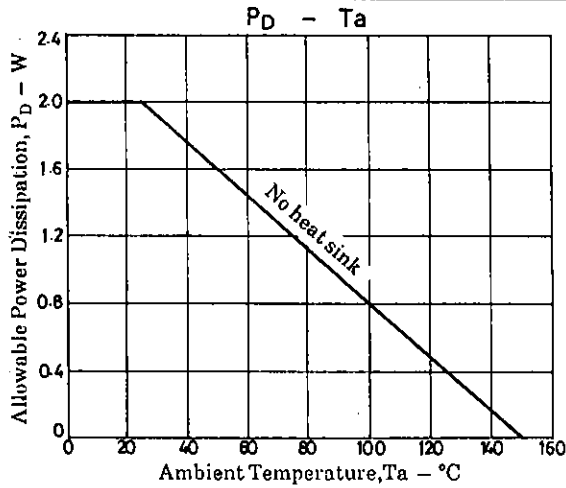
**Switching Time Test Circuit**



**Package Dimensions 2063A**







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