

SANYO	No.4600A	2SK2160
		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.

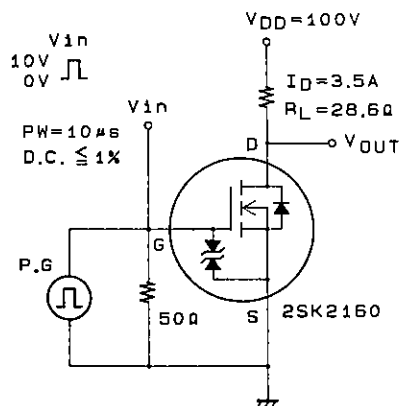
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit	
Drain-to-Source Voltage	V_{DS}	200	V	
Gate-to-Source Voltage	V_{GS}	± 20	V	
Drain Current(DC)	I_D	7	A	
Drain Current(Pulse)	I_{DP}	$PW \leq 10 \mu s, \text{ duty cycle} \leq 1\%$	28	A
Allowable Power Dissipation	P_D	$T_c = 25^\circ\text{C}$	2.0	W
			25	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$	
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

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

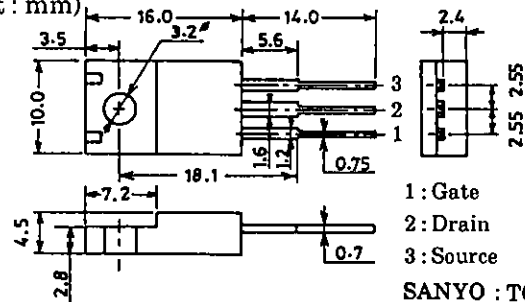
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	200			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100 \mu\text{A}, V_{DS} = 0$	± 20			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 200\text{V}, V_{GS} = 0$			100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16\text{V}, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	1.5		2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 3.5\text{A}$	3	5		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 3.5\text{A}, V_{GS} = 10\text{V}$		350	450	m Ω
Input Capacitance	C_{iss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		550		pF
Output Capacitance	C_{oss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		110		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		45		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		12		ns
Rise Time	t_r	"		15		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		190		ns
Fall Time	t_f	"		65		ns
Diode Forward Voltage	V_{SD}	$I_S = 7\text{A}, V_{GS} = 0$		1.0	1.5	V

Switching Time Test Circuit



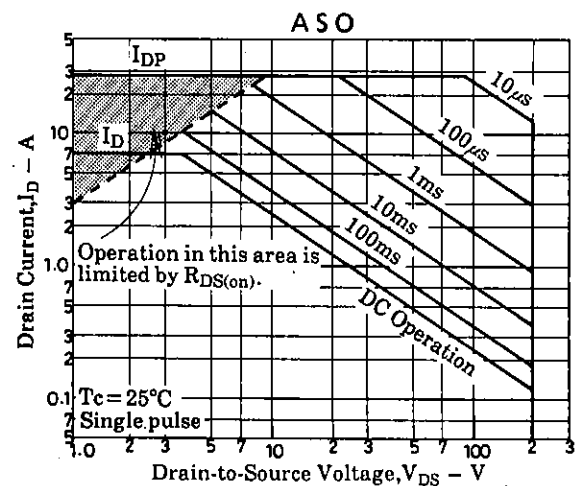
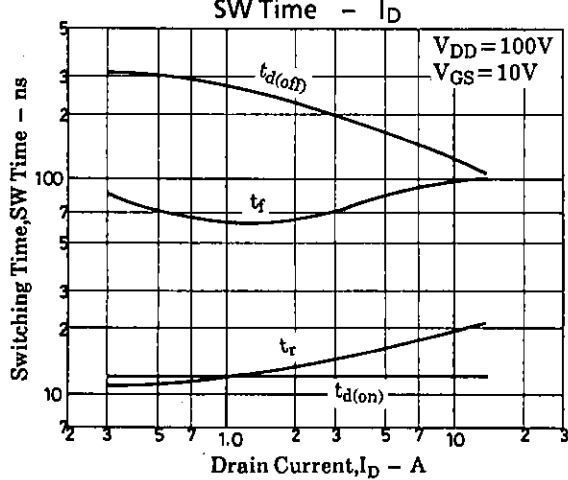
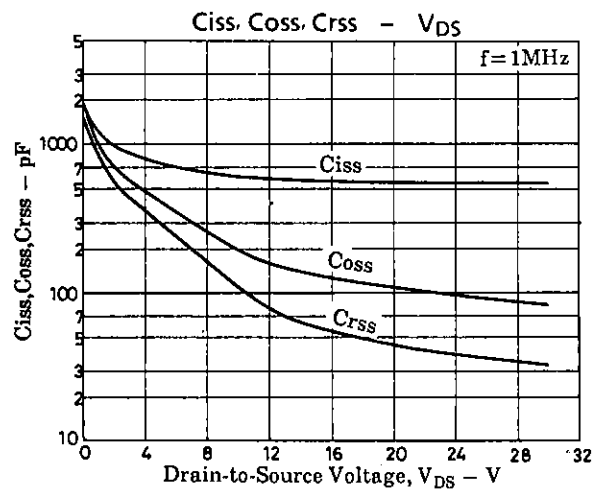
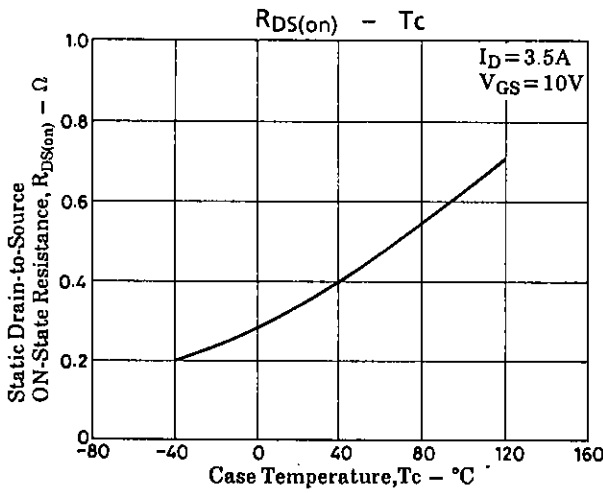
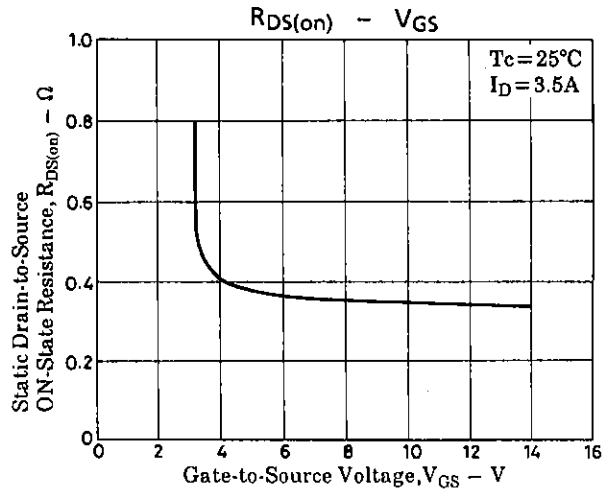
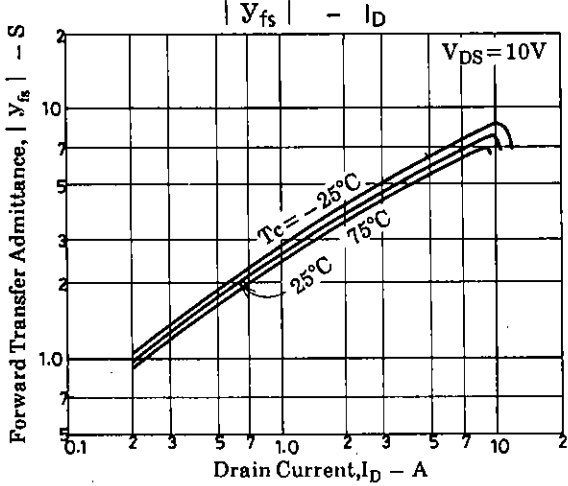
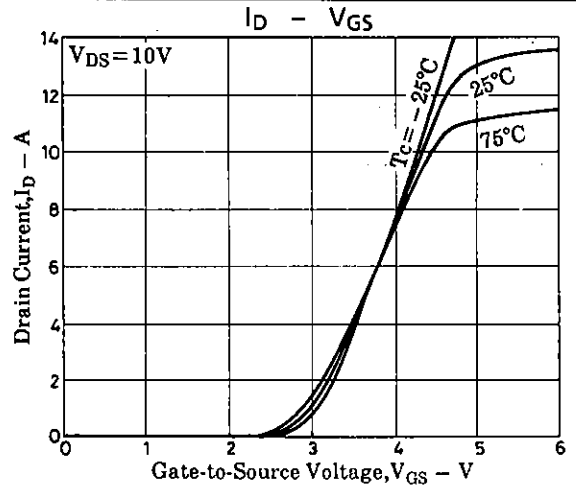
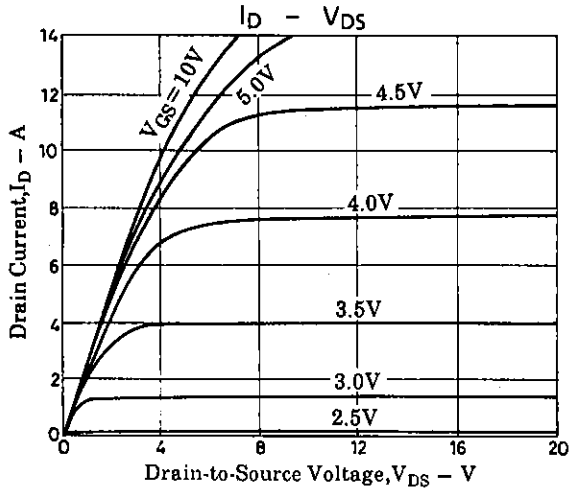
Package Dimensions 2063A

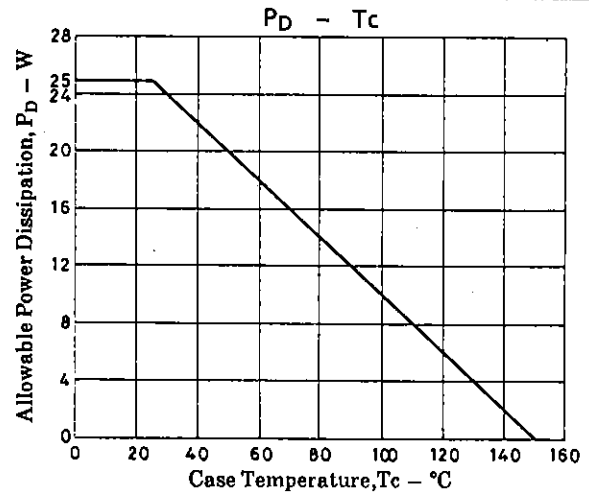
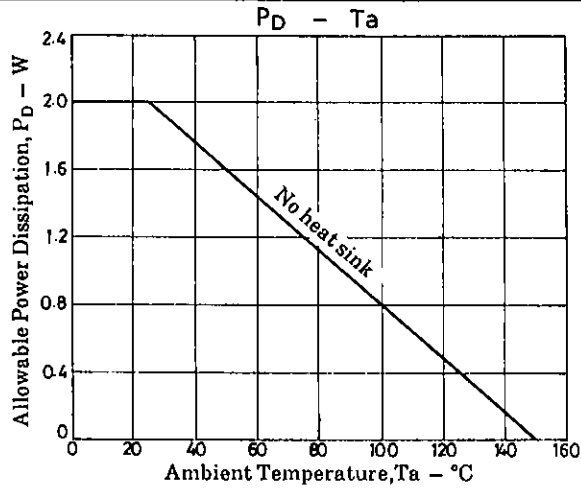
(unit : mm)



1: Gate
2: Drain
3: Source

SANYO : TO - 220ML





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