

SANYO	No.4569A	2SK2152
		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

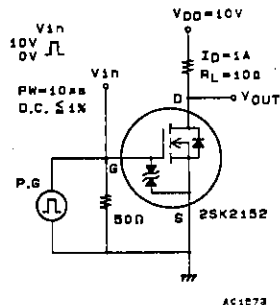
			unit
Drain-to-Source Voltage	V _{DSS}	20	V
Gate-to-Source Voltage	V _{GSS}	±15	V
Drain Current(DC)	I _D	2	A
Drain Current(Pulse)	I _{DP}	PW ≤ 10μs, duty cycle ≤ 1%	8 A
Allowable Power Dissipation	P _D	Tc = 25°C	3.5 W
		Mounted on ceramic board (250mm ² × 0.8mm)	1.5 W
Channel Temperature	Tch	150	°C
Storage Temperature	Tstg	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

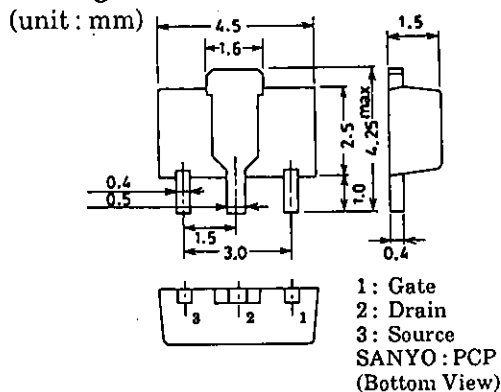
			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	20			V
G-S Breakdown Voltage	V _{(BR)GSS}	I _G = ±100μA, V _{DS} = 0	±15			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} = 20V, V _{GS} = 0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0			±10	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		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D = 1A, V _{GS} = 10V		130	180	mΩ
ON-State Resistance	R _{DS(on)}	I _D = 1A, V _{GS} = 4V		170	250	mΩ
Input Capacitance	C _{iss}	V _{DS} = 10V, f = 1MHz		170		pF
Output Capacitance	C _{oss}	V _{DS} = 10V, f = 1MHz		145		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 10V, f = 1MHz		50		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		10		ns
Rise Time	t _r	∕		12		ns
Turn-OFF Delay Time	t _{d(off)}	∕		50		ns
Fall Time	t _f	∕		35		ns
Diode Forward Voltage	V _{SD}	I _S = 2A, V _{GS} = 0	1.0			V

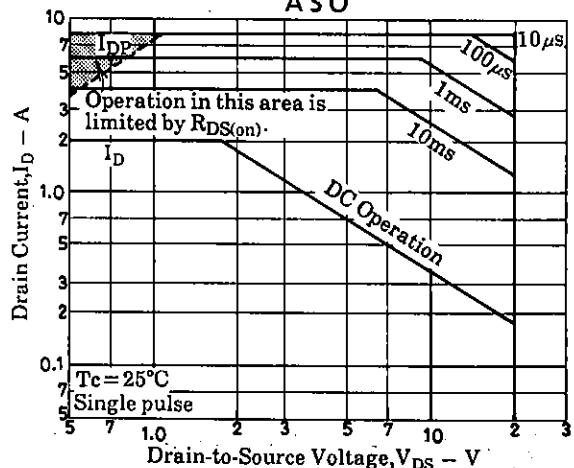
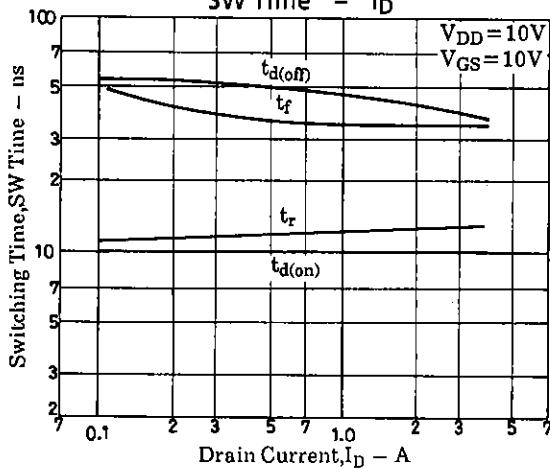
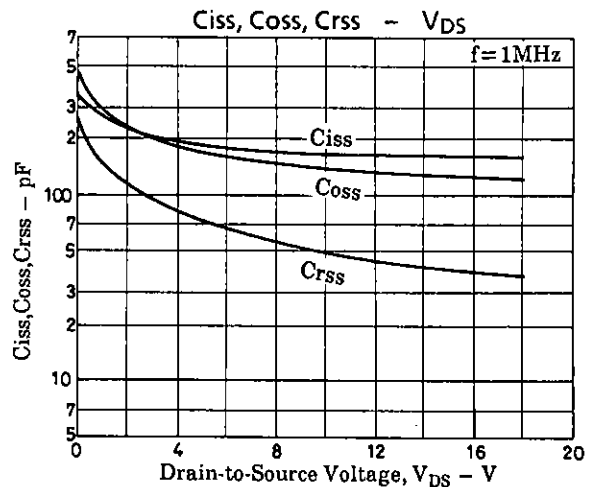
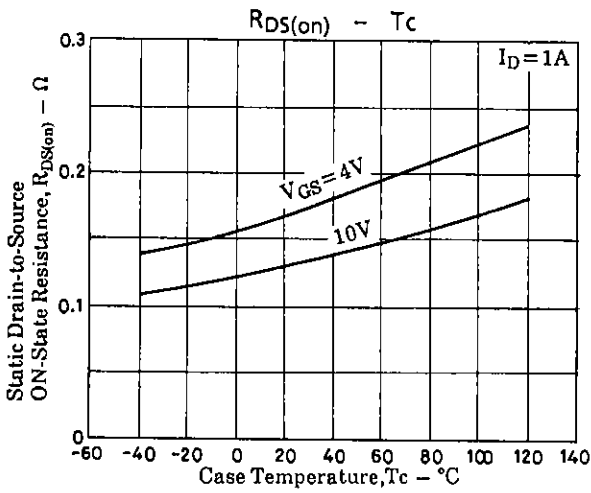
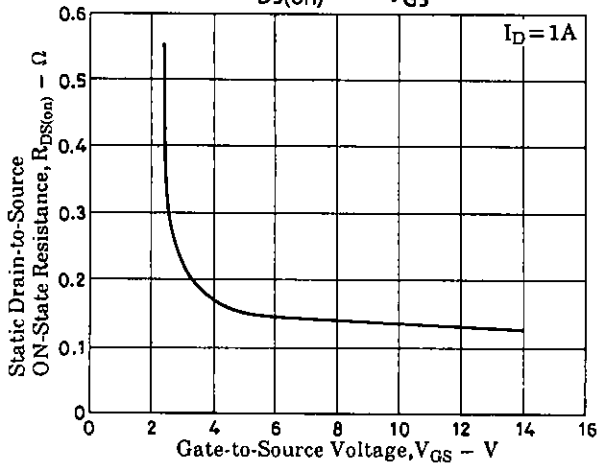
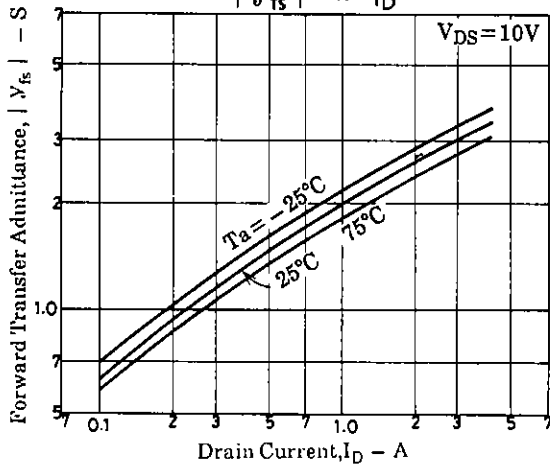
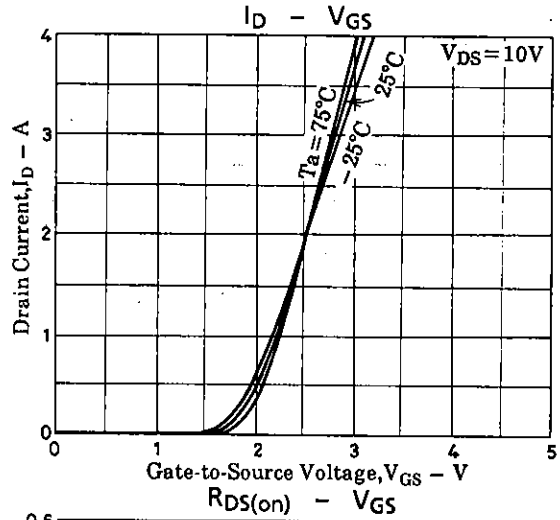
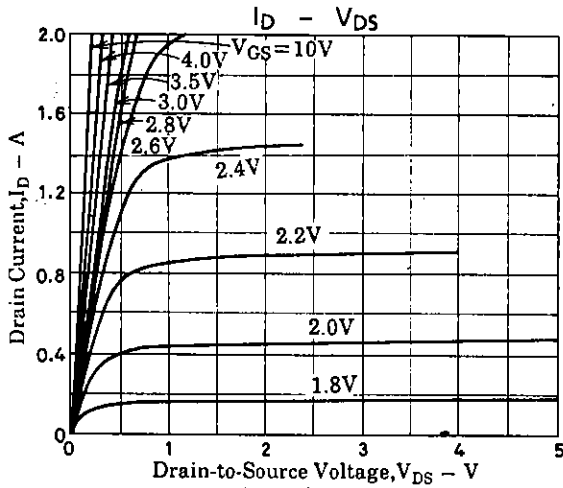
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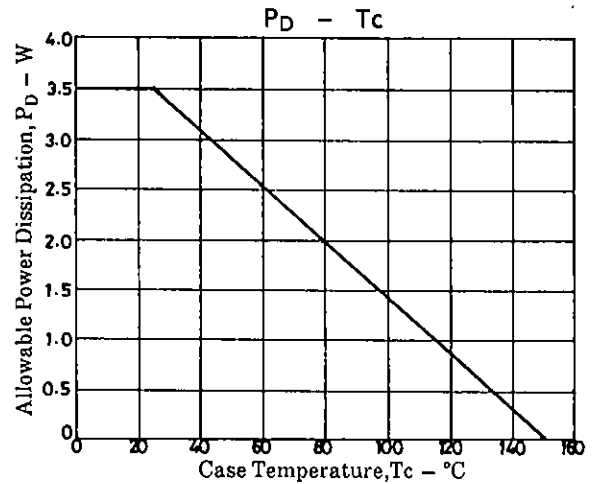
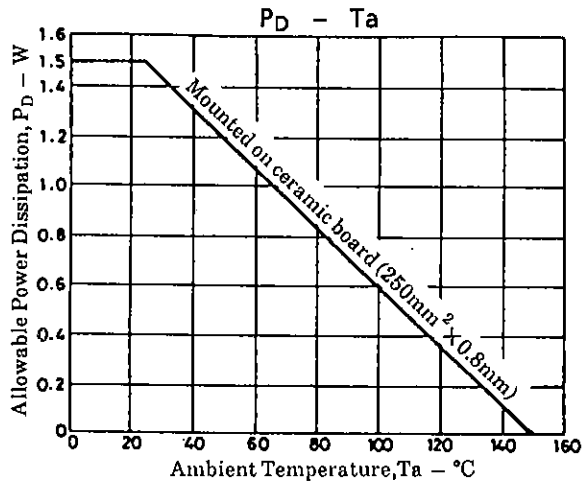
Switching Time Test Circuit



Package Dimensions 2062A







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