



No.4319

2SK2010

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.

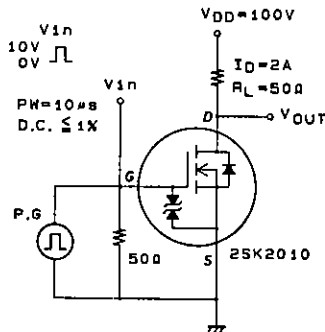
Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V _{DSS}	250	V
Gate-to-Source Voltage	V _{GSS}	±30	V
Drain Current(DC)	I _D	4	A
Drain Current(Pulse)	I _{DP}	PW ≤ 10μs, duty cycle ≤ 1%	16 A
Allowable Power Dissipation	P _D	2.0	W
		T _c = 25°C	25 W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

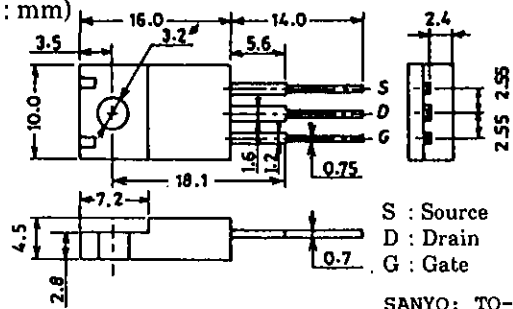
			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	250			V
G-S Breakdown Voltage	V _{(BR)GSS}	I _G = ±100μA, V _{DS} = 0	±30			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 250V, V _{GS} = 0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} = ±25V, V _{DS} = 0			±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 = 2A	2.5	4		S
Static Drain to Source on State Resistance	R _{DS(on)}	I _D = 2A, V _{GS} = 10V		0.5	0.7	Ω
Input Capacitance	C _{iss}	V _{DS} = 20V, f = 1MHz		600		pF
Output Capacitance	C _{oss}	V _{DS} = 20V, f = 1MHz		100		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 20V, f = 1MHz		40		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)}	"		65		ns
Fall Time	t _f	"		55		ns
Diode Forward Voltage	V _{SD}	I _S = 4A, V _{GS} = 0	1.0	1.5		V

Switching Time Test Circuit



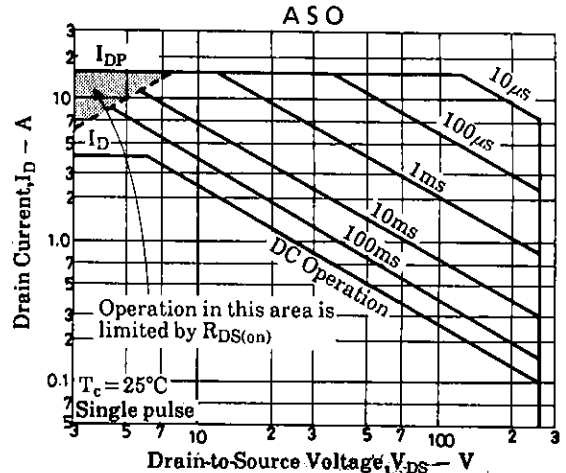
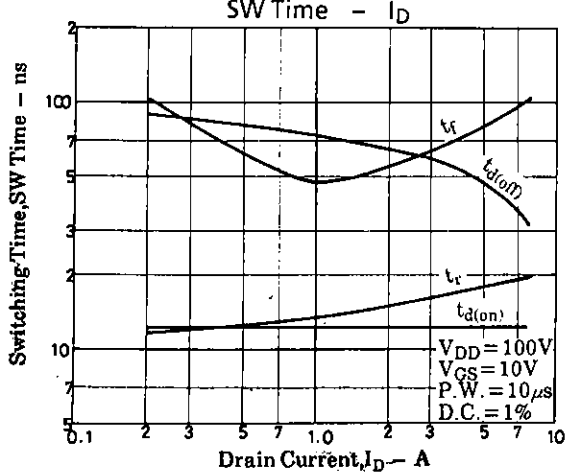
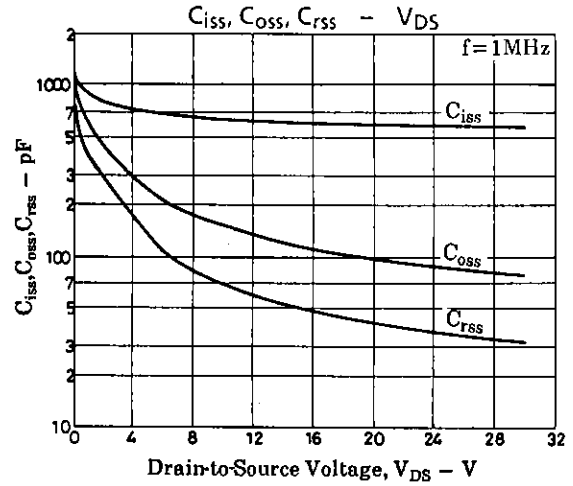
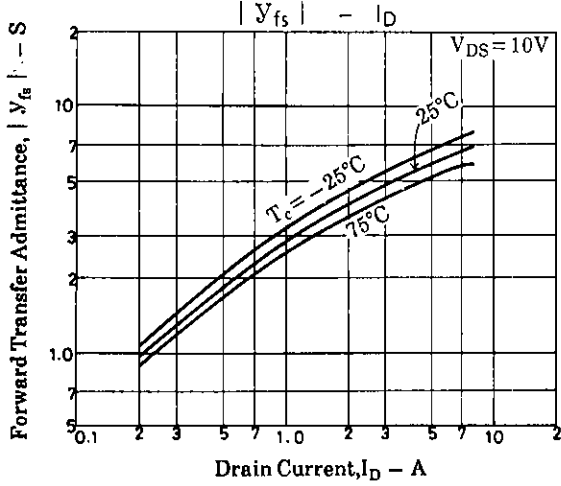
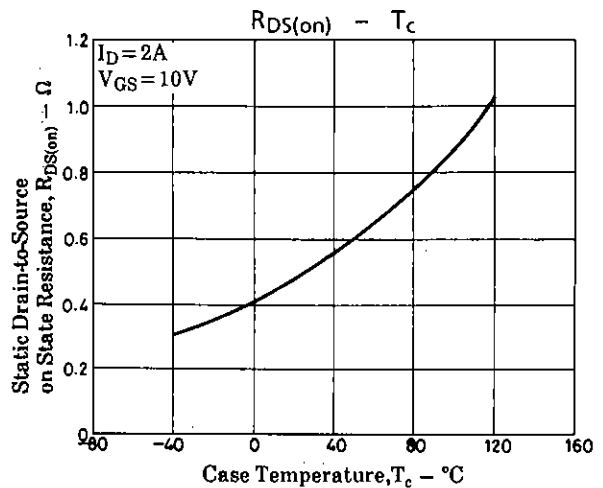
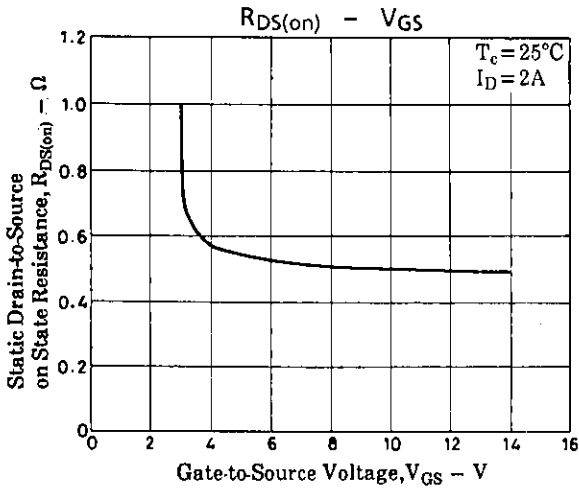
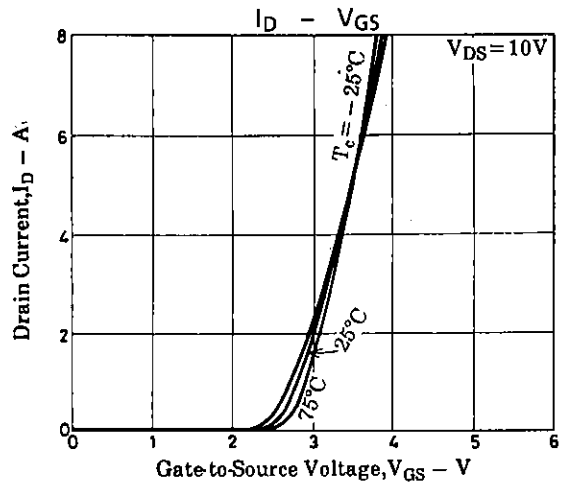
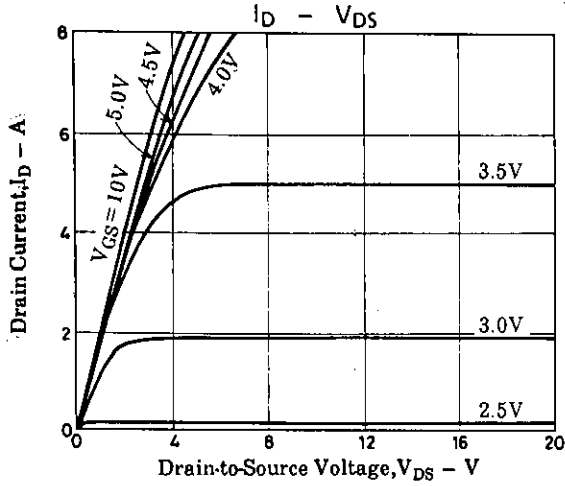
Package Dimensions 2063

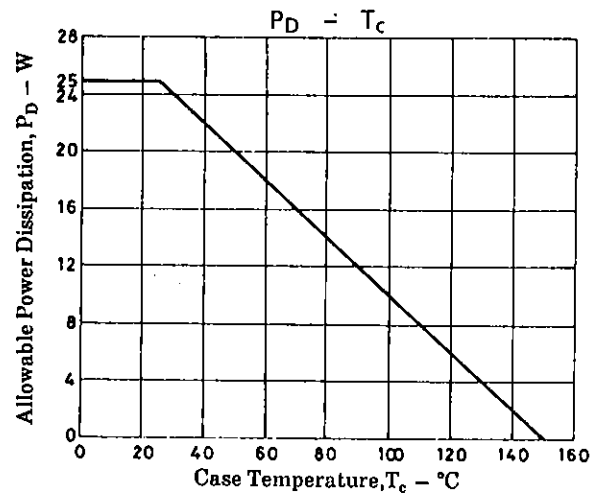
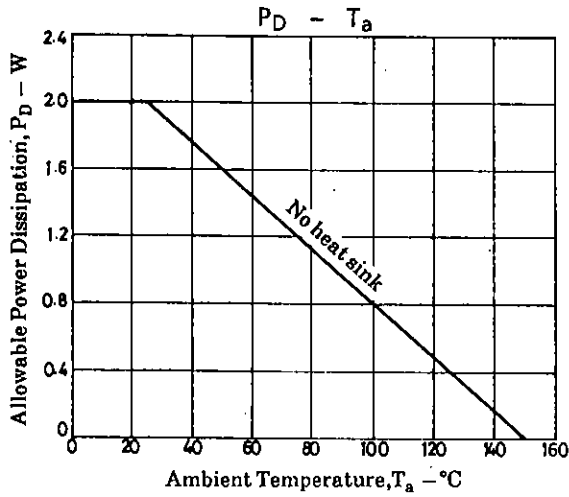
(unit: mm)



SANYO Electric Co., Ltd. Semiconductor Business Headquarters

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





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