

SANYO

No.4319

2SK2010

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

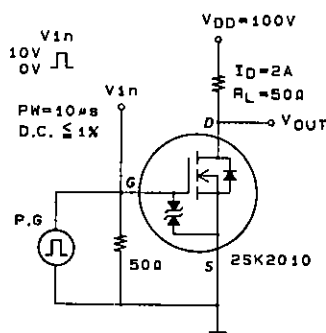
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

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

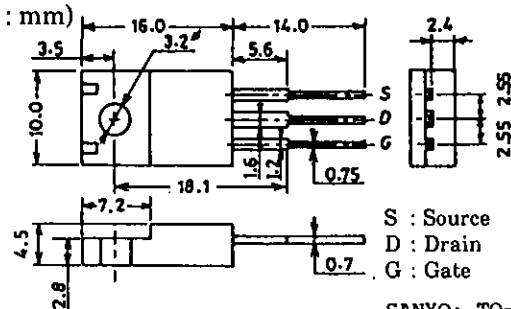
Absolute Maximum Ratings at Ta=25°C				unit
Drain-to-Source Voltage	V _{DSS}		250	V
Gate-to-Source Voltage	V _{GSS}		±30	V
Drain Current(DC)	I _D		4	A
Drain Current(Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	16	A
Allowable Power Dissipation	P _D		2.0	W
		T _c =25°C	25	W
Channel Temperature	T _{ch}		150	°C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

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	250			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	± 30			V
Zero Gate Voltage	I_{DSS}	$V_{DS} = 250\text{V}, V_{GS} = 0$			100	μA
Drain Current						
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 25\text{V}, V_{DS} = 0$			± 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} $	$V_{DS} = 10\text{V}, I_D = 2\text{A}$	2.5	4		S
Static Drain to Source	$R_{DS(on)}$	$I_D = 2\text{A}, V_{GS} = 10\text{V}$		0.5	0.7	Ω
on State Resistance						
Input Capacitance	C_{iss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		600		pF
Output Capacitance	C_{oss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		100		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		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}	$I_S = 4\text{A}, V_{GS} = 0$	1.0	1.5		V

Switching Time Test Circuit**Package Dimensions 2063**

(unit: mm)

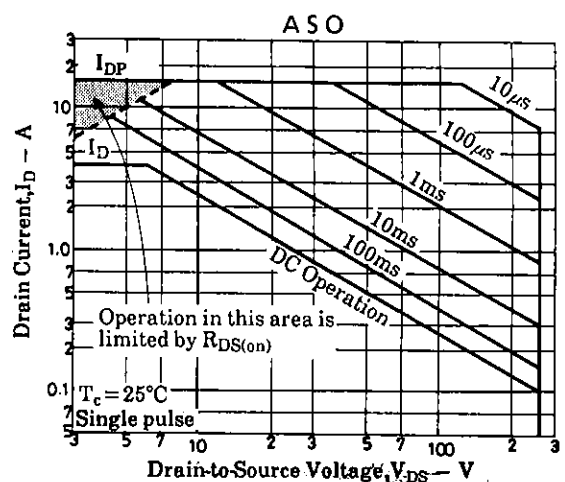
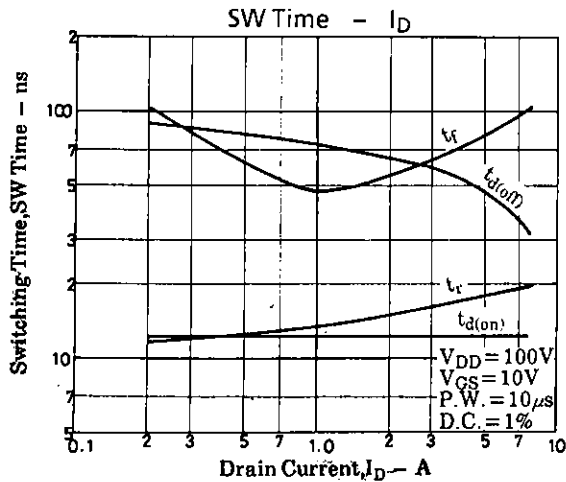
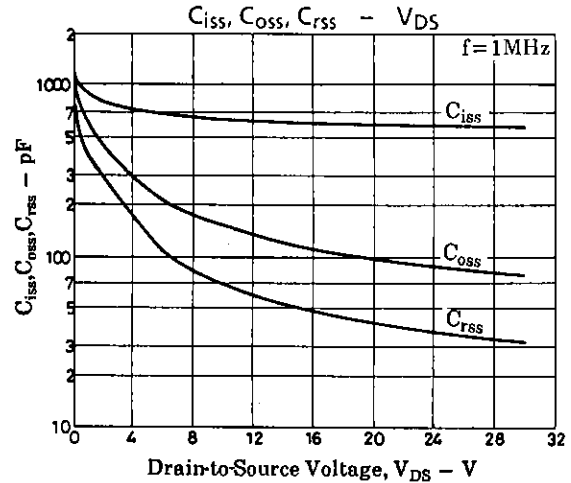
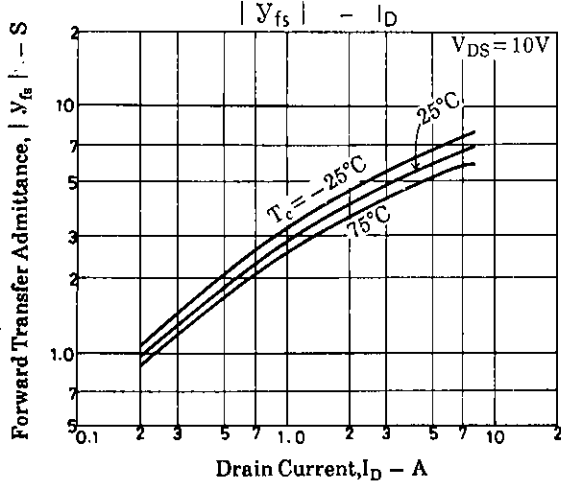
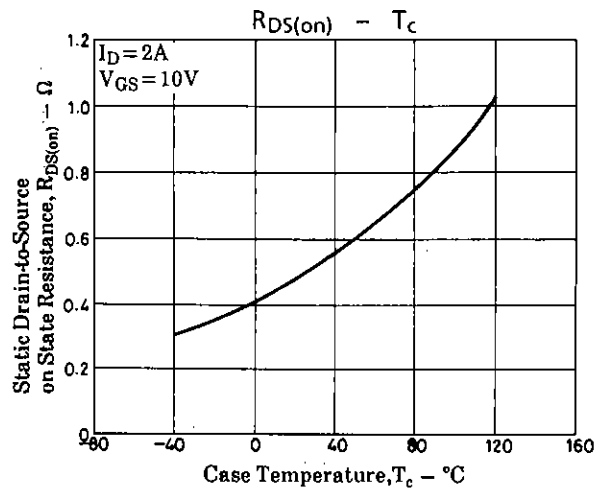
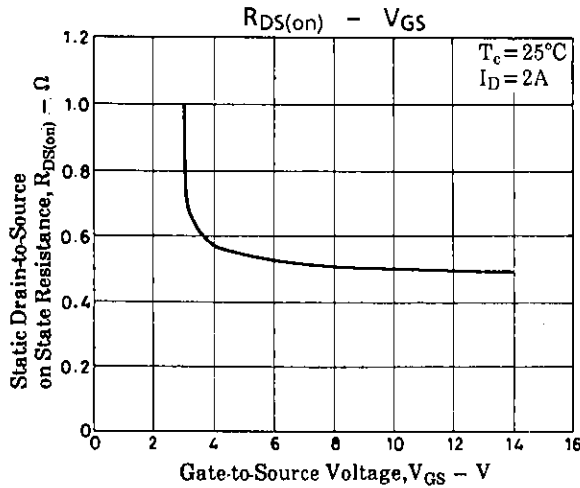
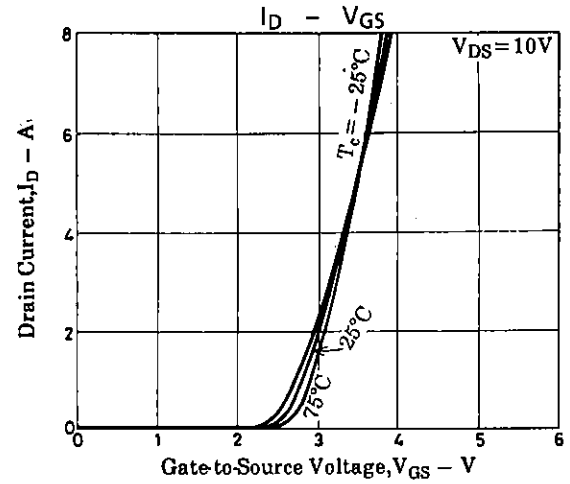
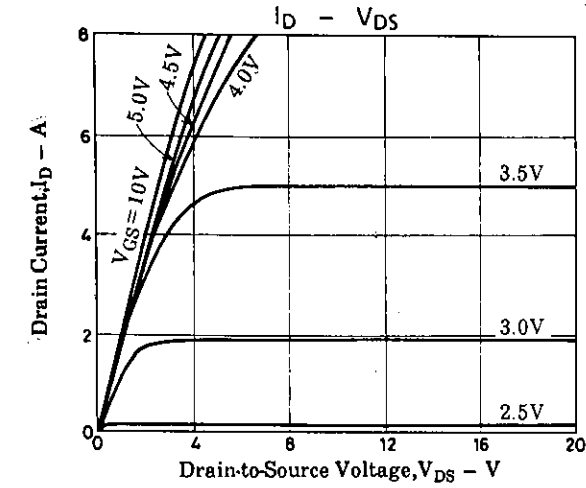


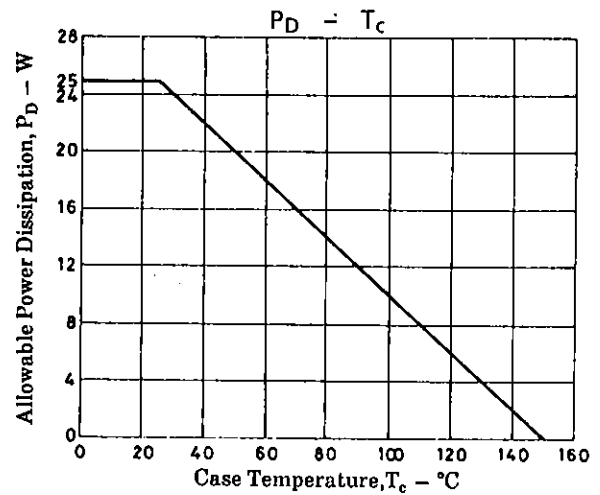
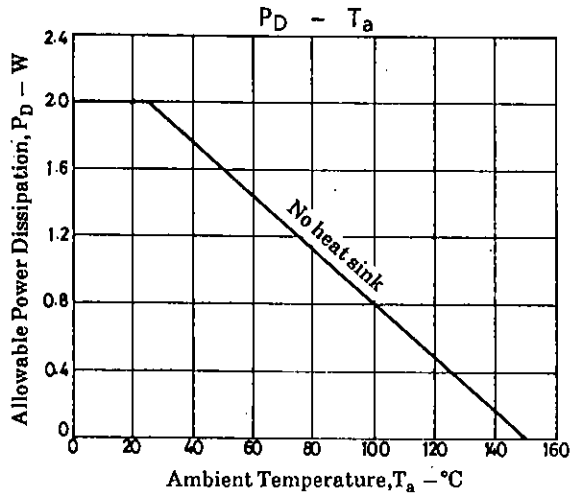
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