

SANYO

No.4211

2SK1904

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

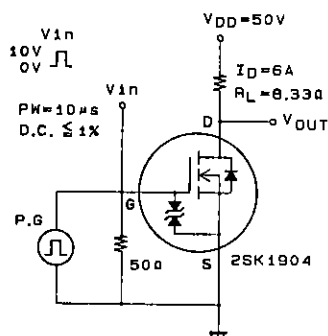
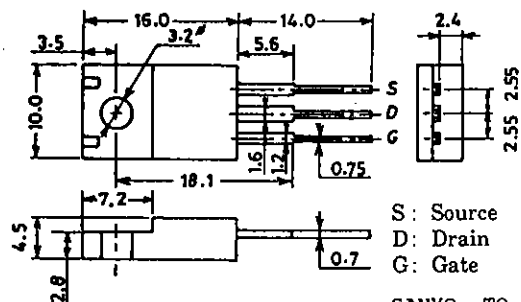
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

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

Absolute Maximum Ratings at T _a = 25 °C				unit
Drain to Source Voltage	V _{DSS}		100	V
Gate to Source Voltage	V _{GSS}		± 15	V
Drain Current(DC)	I _D		10	A
Drain Current(Pulse)	I _{DP}	PW ≤ 10 μs, duty cycle ≤ 1%	40	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

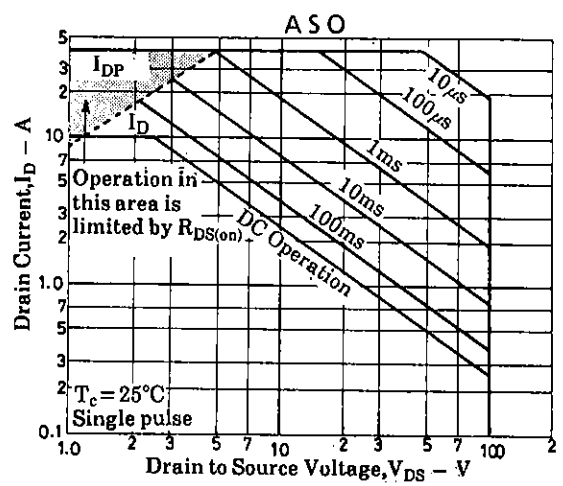
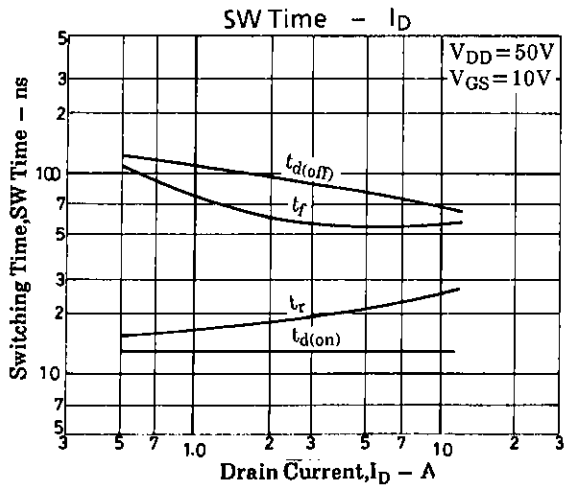
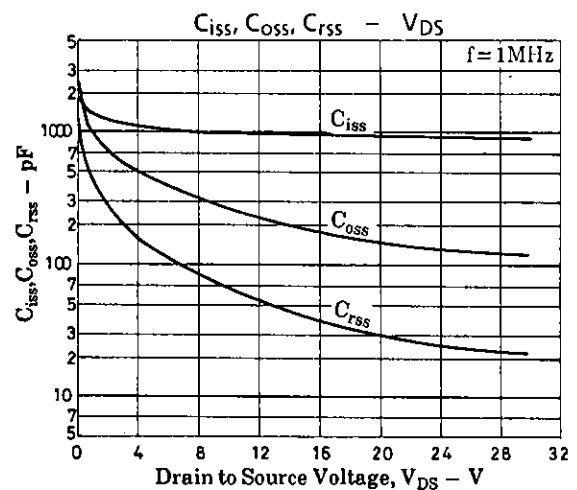
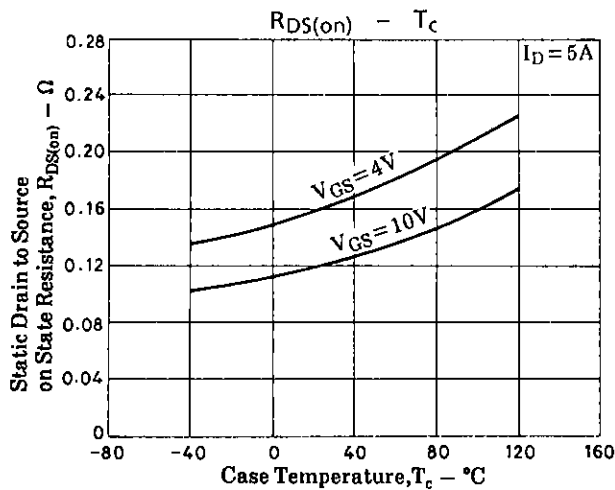
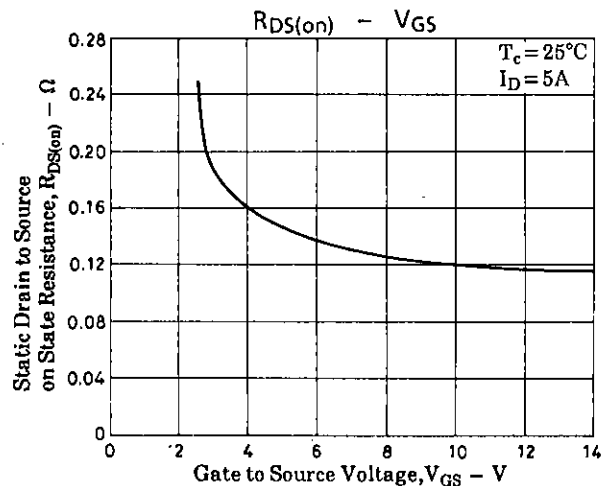
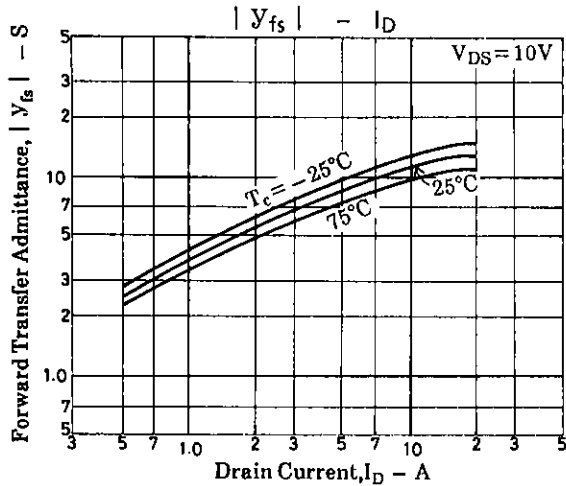
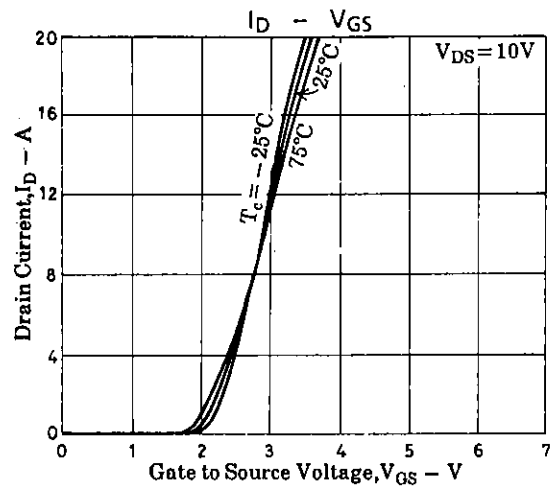
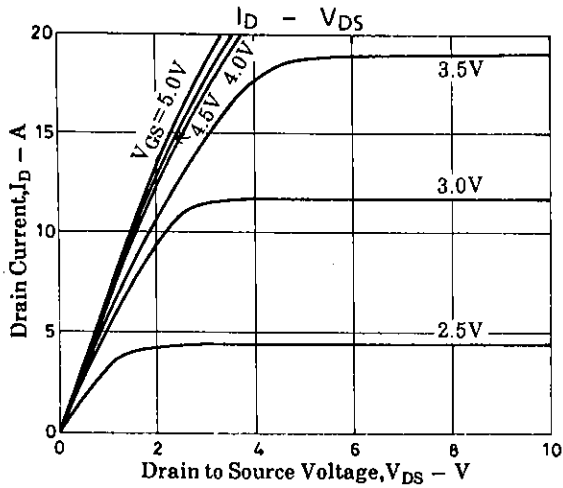
Electrical Characteristics at $T_a = 25^\circ\text{C}$

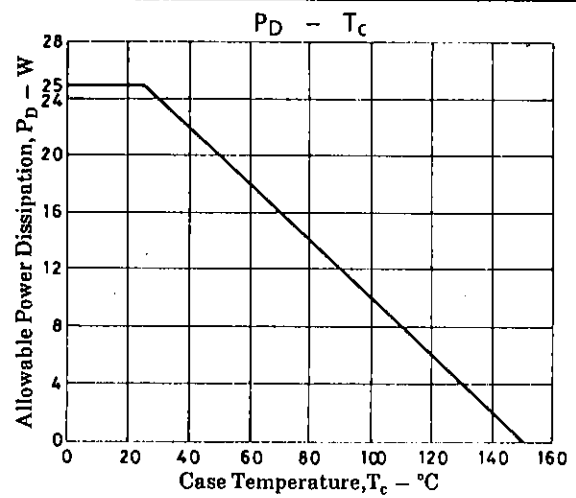
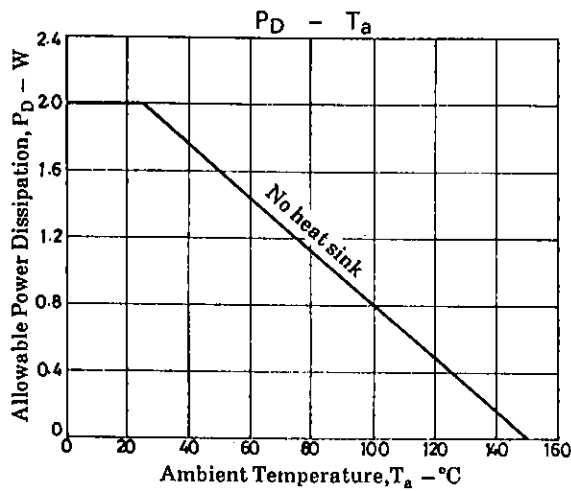
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	100			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	± 15			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 100\text{V}, V_{GS} = 0$			100	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 6\text{A}$	6	9.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 6\text{A}, V_{GS} = 10\text{V}$		0.12	0.16	Ω
	$R_{DS(on)}$	$I_D = 6\text{A}, V_{GS} = 4\text{V}$		0.16	0.22	Ω
Input Capacitance	C_{iss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		950		pF
Output Capacitance	C_{oss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		150		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		30		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		13		ns
Rise Time	t_r	"		22		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		80		ns
Fall Time	t_f	"		55		ns
Diode Forward Voltage	V_{SD}	$I_S = 10\text{A}, V_{GS} = 0$	1.0	1.5		V

Switching Time Test Circuit**Package Dimensions 2063**
(unit: mm)

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