

SANYO	No.4617	<h1 style="margin: 0;">2SK2083</h1> <p style="margin: 0;">N-Channel MOS Silicon FET</p> <p style="margin: 0;">Very High-Speed Switching Applications</p>
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Features

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

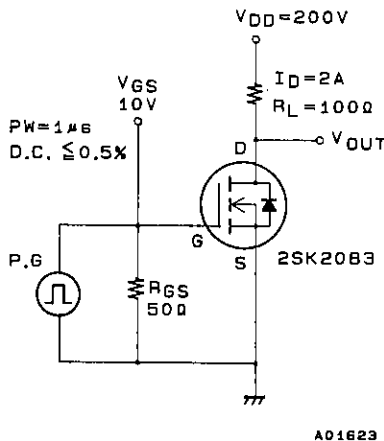
Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V_{DSS}	900	V
Gate-to-Source Voltage	V_{GSS}	± 30	V
Drain Current(DC)	I_D	5	A
Drain Current(Pulse)	I_{DP}	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	10 A
Allowable Power Dissipation	P_D	$T_c = 25^\circ C$	70 W
			1.65 W
Channel Temperature	T_{ch}	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

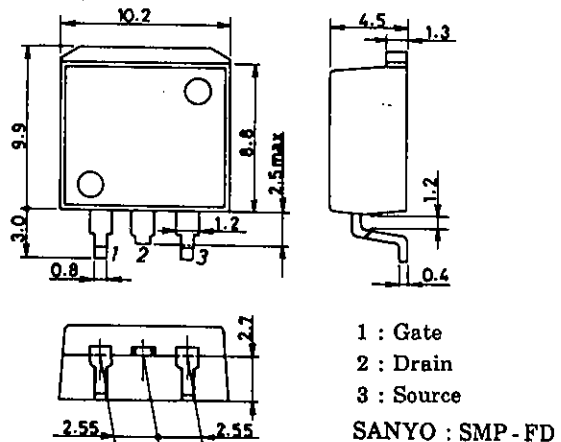
Electrical Characteristics at Ta = 25°C

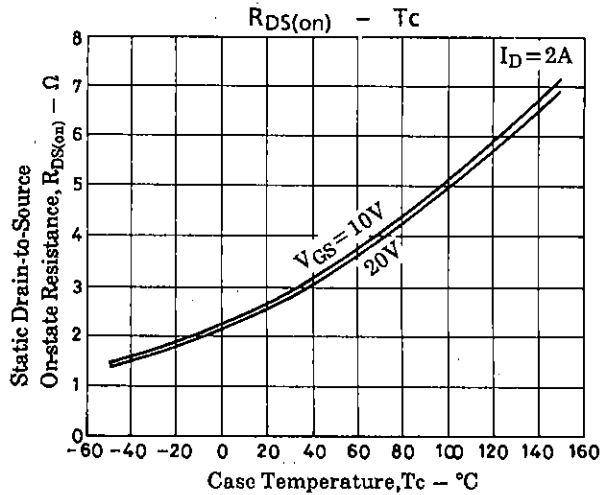
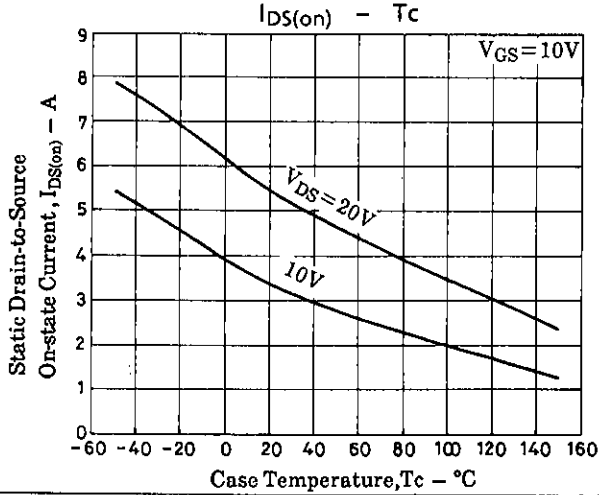
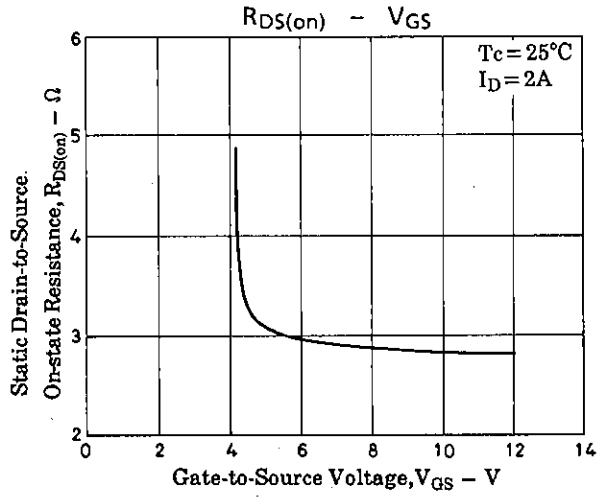
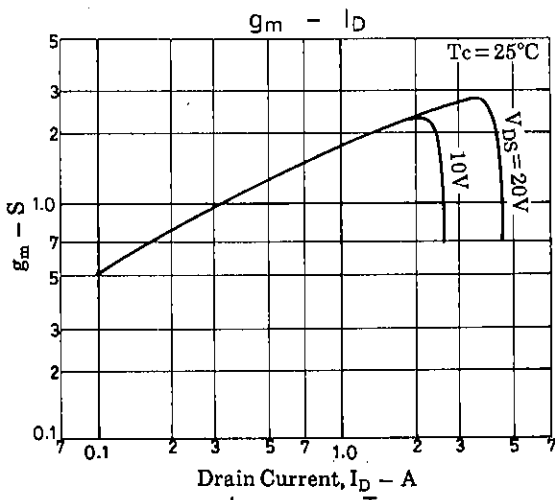
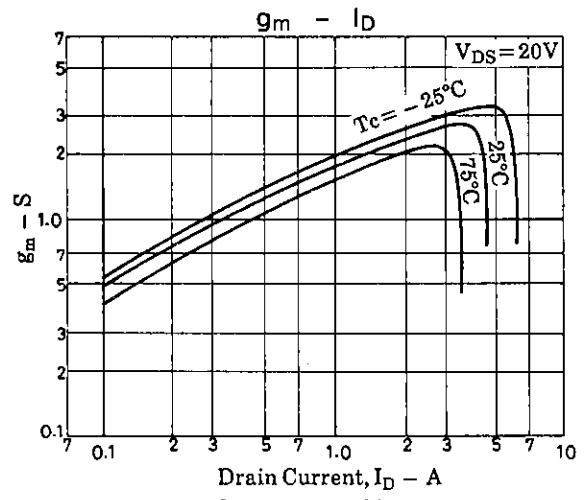
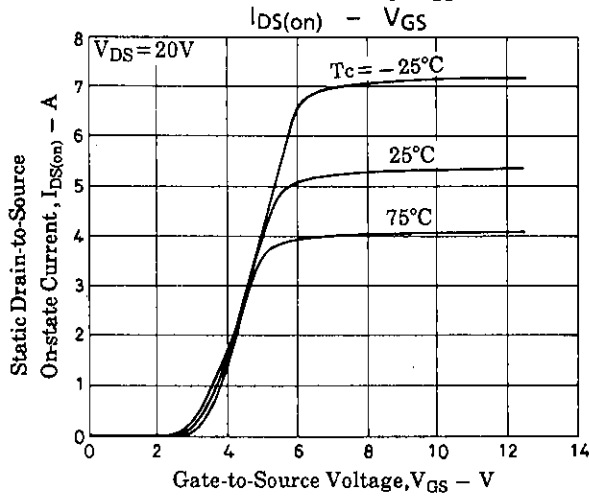
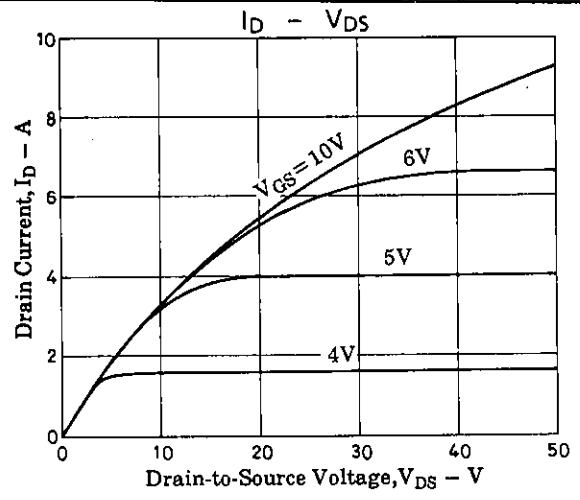
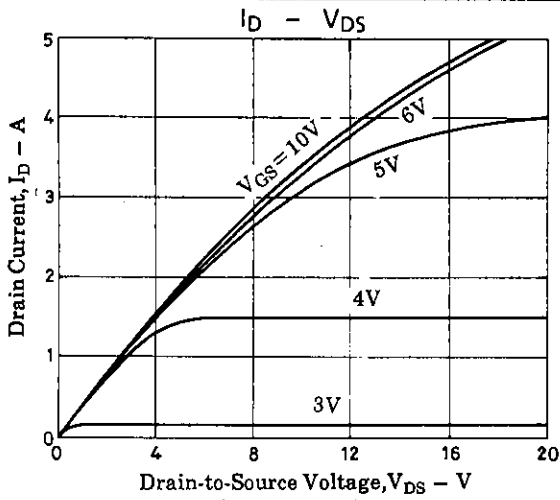
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	900			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 900V, V_{GS} = 0$			1.0	mA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 30V, V_{DS} = 0$			± 100	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	2.0		3.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 20V, I_D = 2A$	1.0	2.0		S
Static Drain-to-Source On-state Resistance	$R_{DS(on)}$	$I_D = 2A, V_{GS} = 10V$		2.8	3.6	Ω
Input Capacitance	C_{iss}	$V_{DS} = 20V, f = 1MHz$		700		pF
Output Capacitance	C_{oss}	$V_{DS} = 20V, f = 1MHz$		300		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20V, f = 1MHz$		170		pF
Turn-ON Delay Time	$t_{d(on)}$	$I_D = 2A, V_{GS} = 10V$ $V_{DD} = 200V, R_{GS} = 50\Omega$		15		ns
Rise Time	t_r		35	ns		
Turn-OFF Delay Time	$t_{d(off)}$		200	ns		
Fall Time	t_f		65	ns		
Diode Forward Voltage	V_{SD}		$I_S = 5A, V_{GS} = 0$			1.8

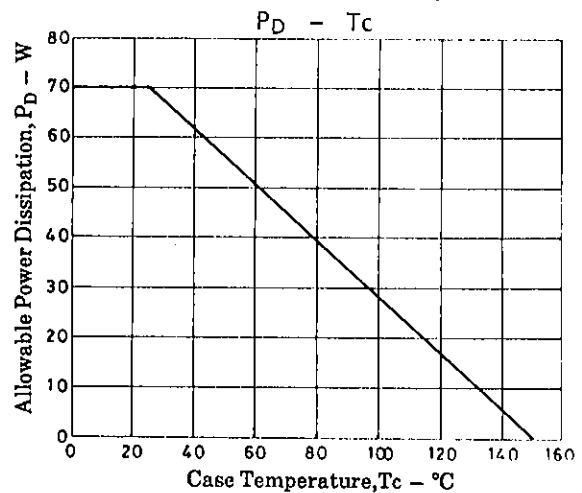
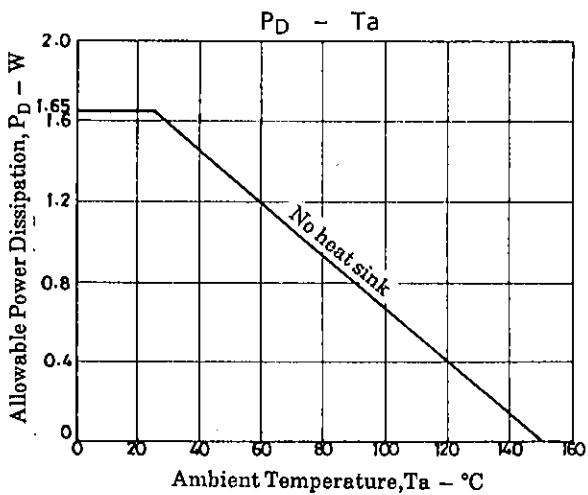
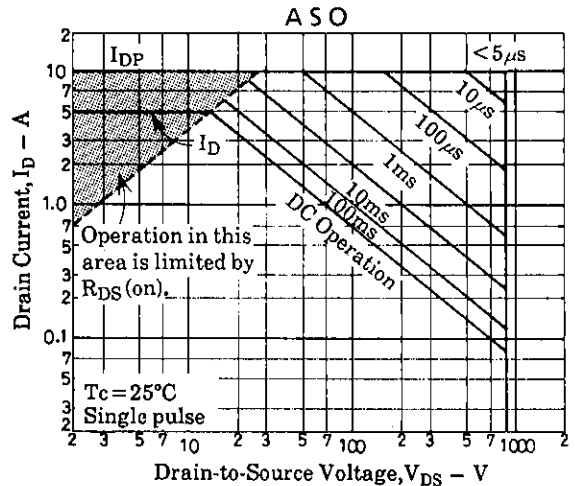
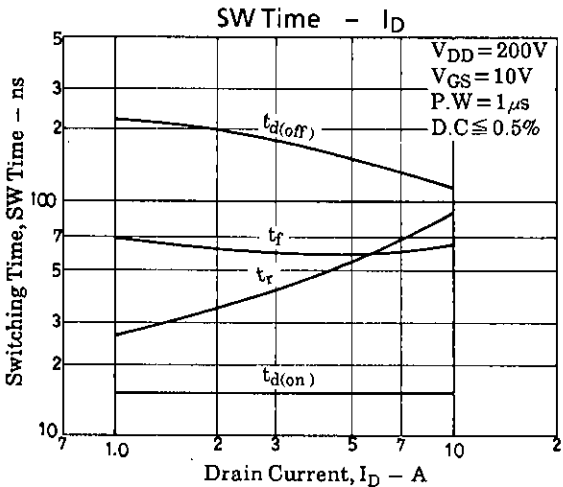
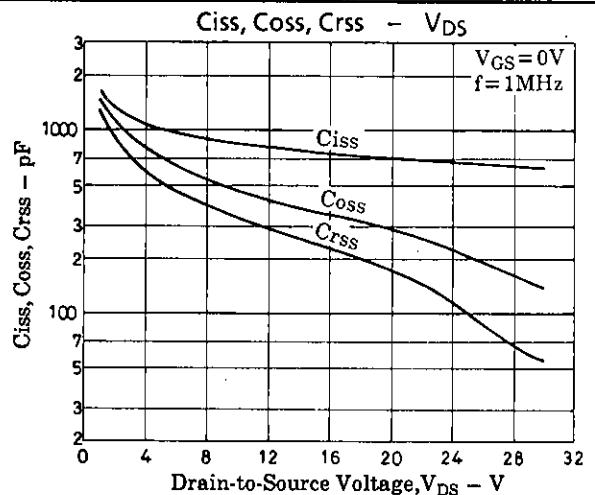
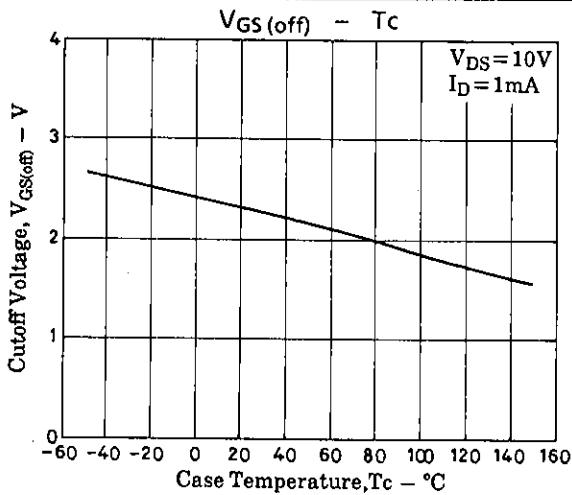
Switching Time Test Circuit



Package Dimensions 2090A (unit: mm)







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