

<b>SANYO</b>	No.4209	<b>2SK1898</b>
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Surface mount type device making the following possible.
  - Reduction in the number of manufacturing processes for 2SK1898-applied equipment.
  - High density surface mount applications.
  - Small size of 2SK1898-applied equipment.

**Absolute Maximum Ratings at Ta = 25°C**

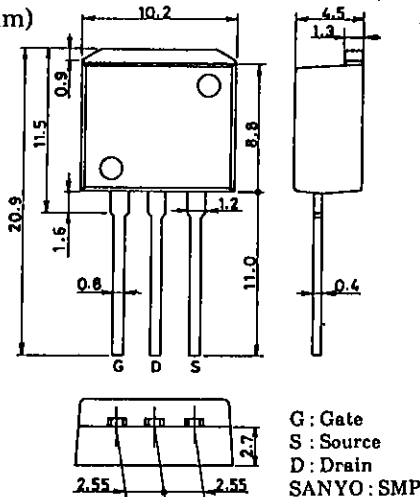
Drain to Source Voltage	$V_{DS}$		60	V
Gate to Source Voltage	$V_{GS}$		±15	V
Drain Current(DC)	$I_D$		15	A
Drain Current(Pulse)	$I_{DP}$	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	60	A
Allowable Power Dissipation	$P_D$		1.65	W
		$T_c = 25^\circ C$	50	W
Channel Temperature	$T_{ch}$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

**Electrical Characteristics at Ta = 25°C**

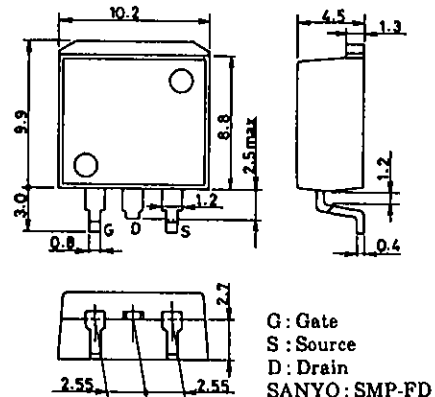
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	60			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	±15			V
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 60V, V_{GS} = 0$			100	μA
Gate to Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 12V, V_{DS} = 0$			±10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 8A$	6.5	10.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 8A, V_{GS} = 10V$		60	80	mΩ
	$R_{DS(on)}$	$I_D = 8A, V_{GS} = 4V$		80	110	mΩ

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**Package Dimensions 2093**  
(unit : mm)



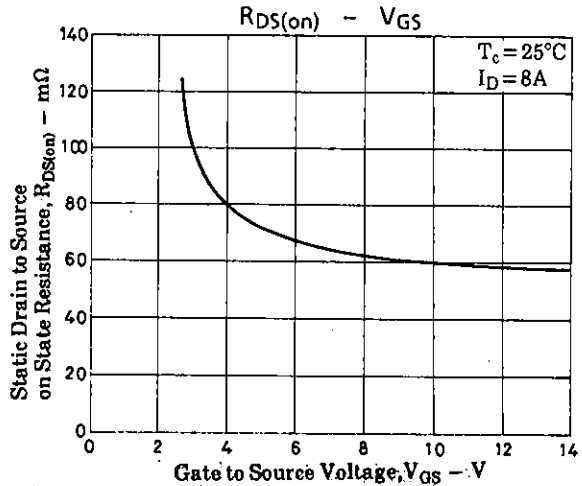
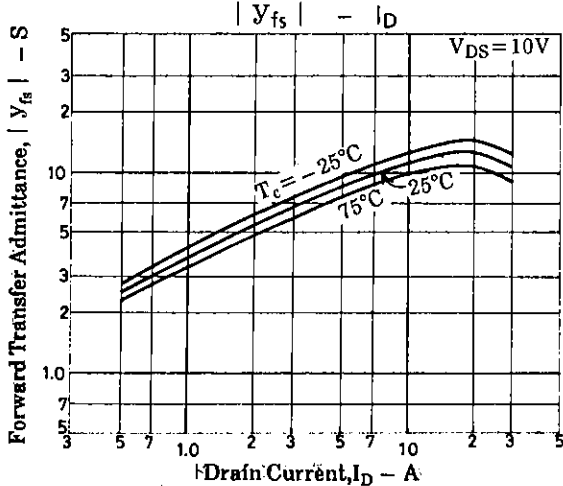
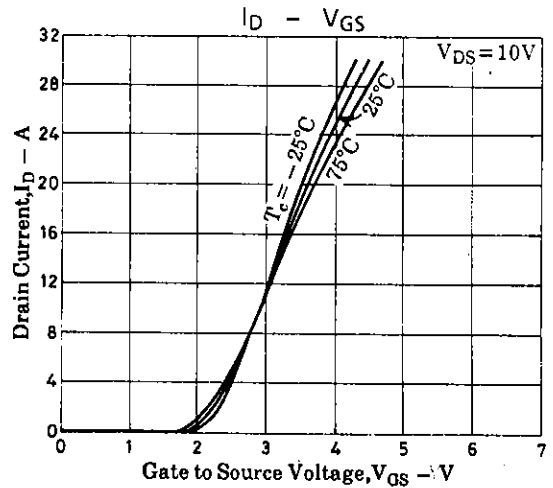
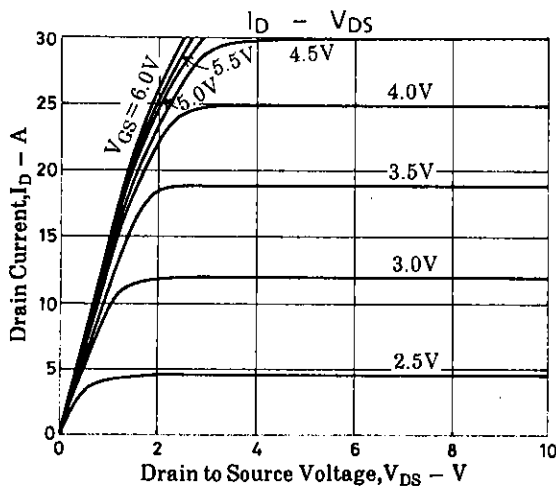
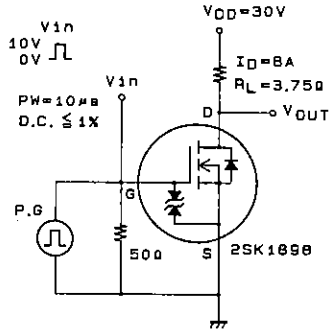
**Package Dimensions 2090**  
(unit : mm)

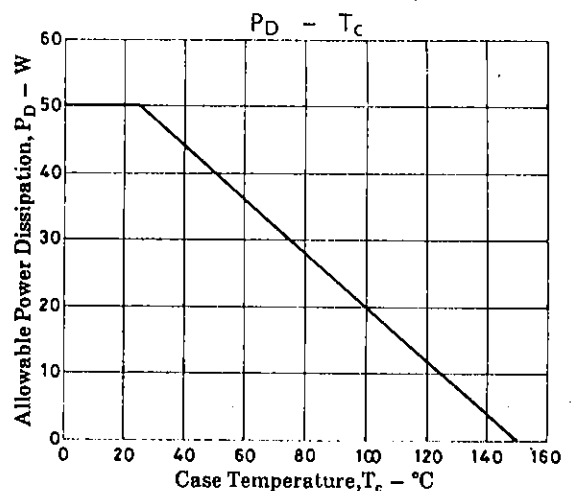
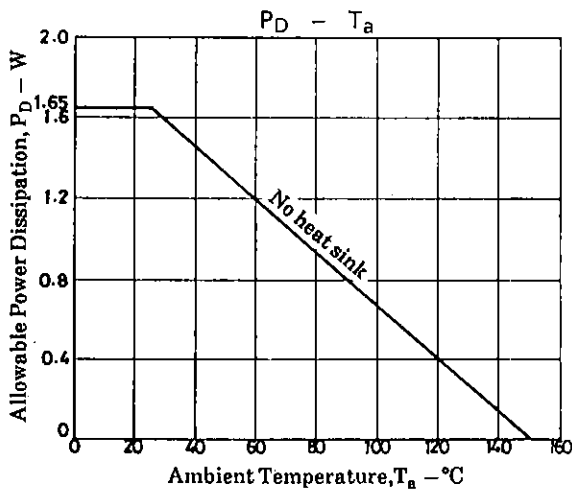
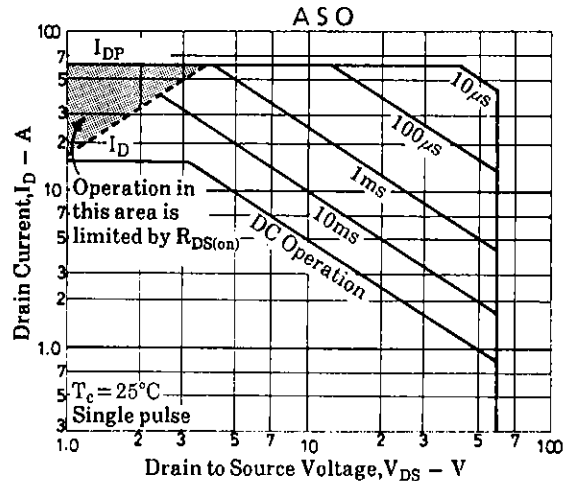
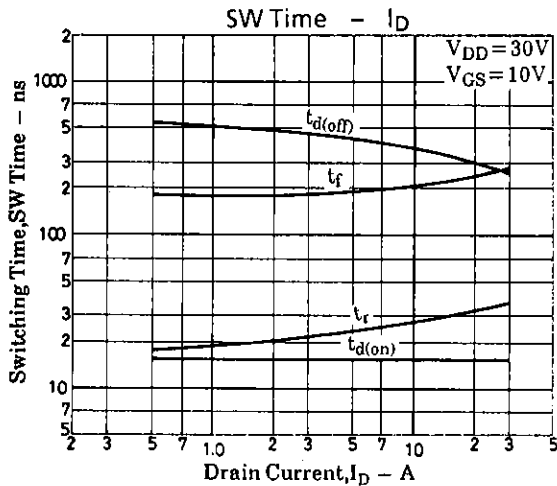
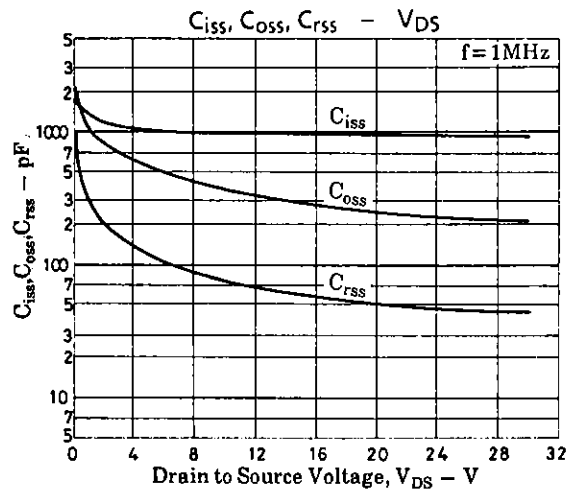
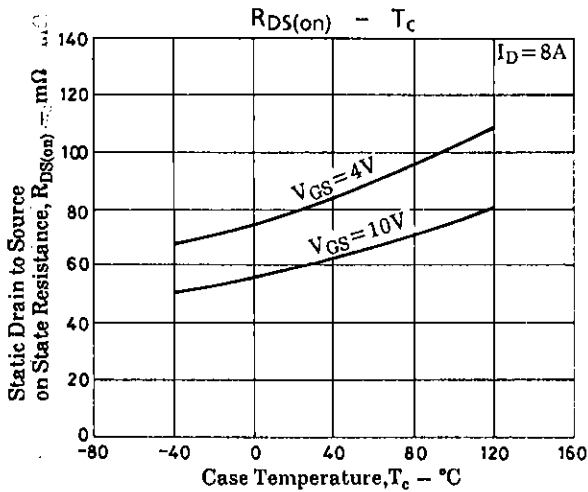


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			min	typ	max.	unit
Input Capacitance	$C_{iss}$	$V_{DS}=20V, f=1MHz$		950		pF
Output Capacitance	$C_{oss}$	$V_{DS}=20V, f=1MHz$		250		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=20V, f=1MHz$		50		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		13		ns
Rise Time	$t_r$	"		40		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		95		ns
Fall Time	$t_f$	"		80		ns
Diode Forward Voltage	$V_{SD}$	$I_S=15A, V_{GS}=0$		1.0	1.5	V

Switching Time Test Circuit





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