

SANYO	No.4209	2SK1898
		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

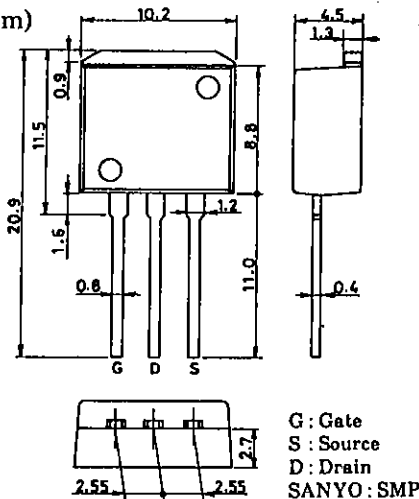
			unit
Drain to Source Voltage	V _{DSS}	60	V
Gate to Source Voltage	V _{GS}	±15	V
Drain Current(DC)	I _D	15	A
Drain Current(Pulse)	I _{DP}	PW ≤ 10μs, duty cycle ≤ 1%	60 A
Allowable Power Dissipation	P _D	T _c = 25°C	1.65 W
			50 W
Channel Temperature	T _{ch}		150 °C
Storage Temperature	T _{stg}		-55 to +150 °C

Electrical Characteristics at Ta = 25°C

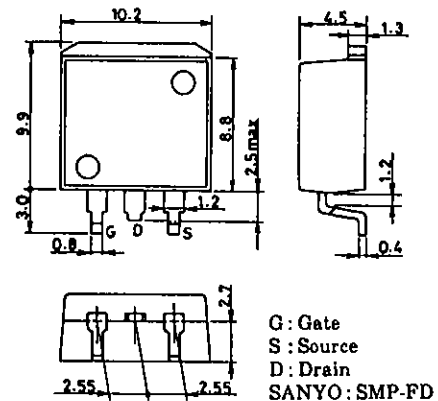
			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	60			V
G-S Breakdown Voltage	V _{(BR)GSS}	I _G = ±100μA, V _{DS} = 0	±15			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 60V, V _{GS} = 0			100	μA
Gate to Source Leakage Current	I _{GSS}	V _{GS} = ±12V, V _{DS} = 0			±10	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
		I _D = 8A, V _{GS} = 4V		80	110	mΩ

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Package Dimensions 2093
(unit : mm)



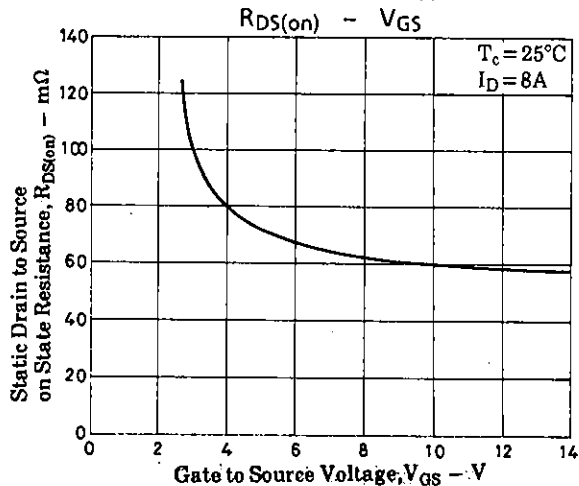
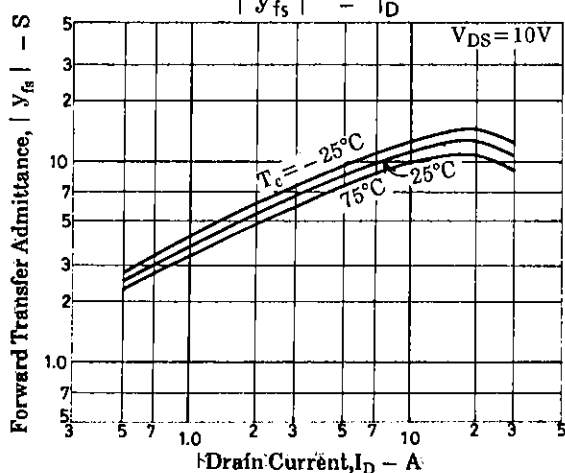
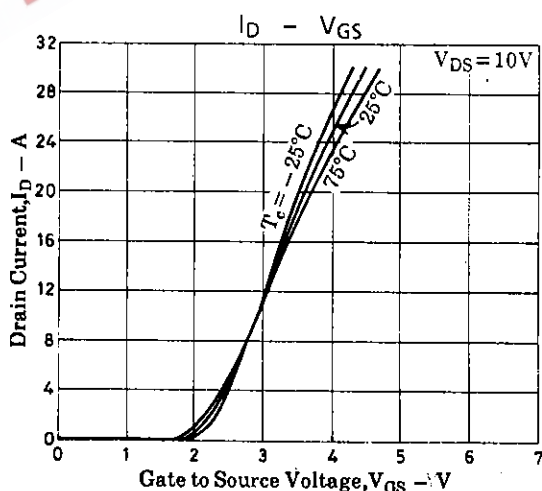
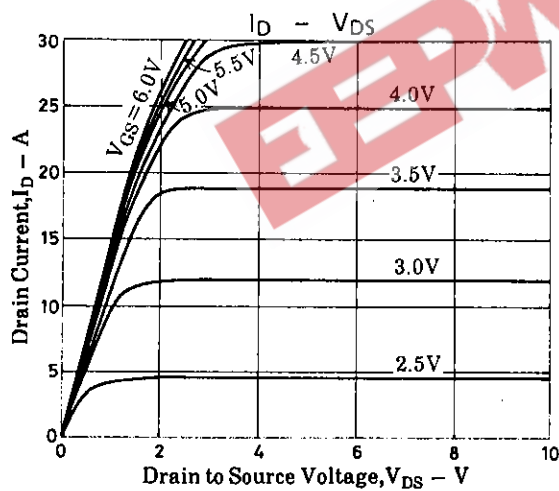
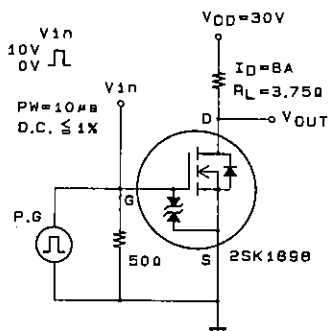
Package Dimensions 2090
(unit : mm)

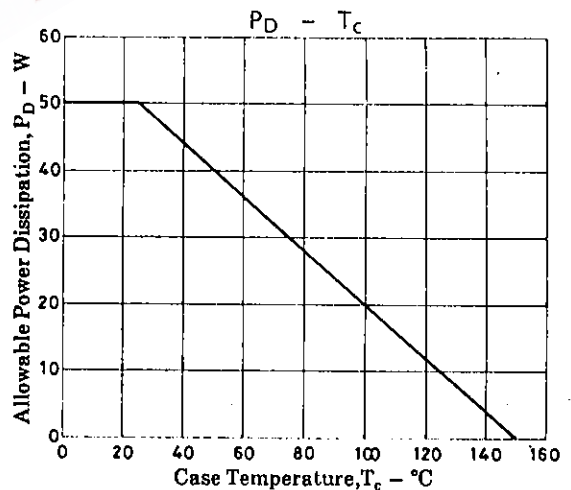
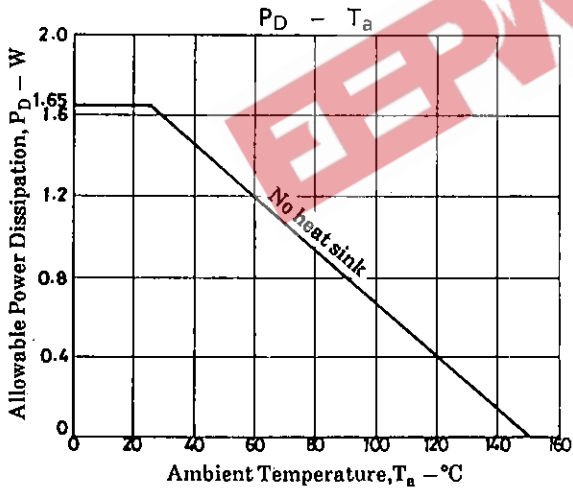
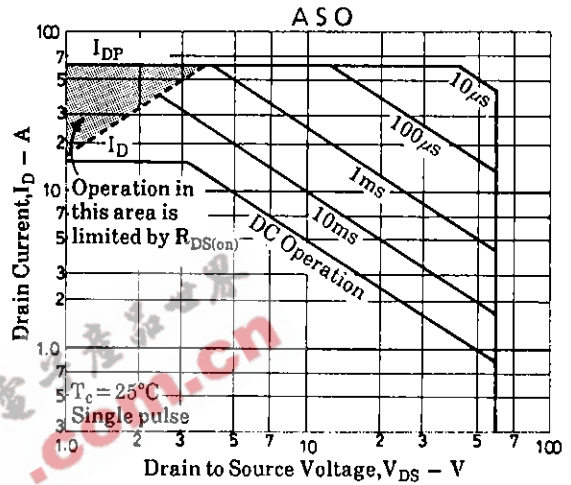
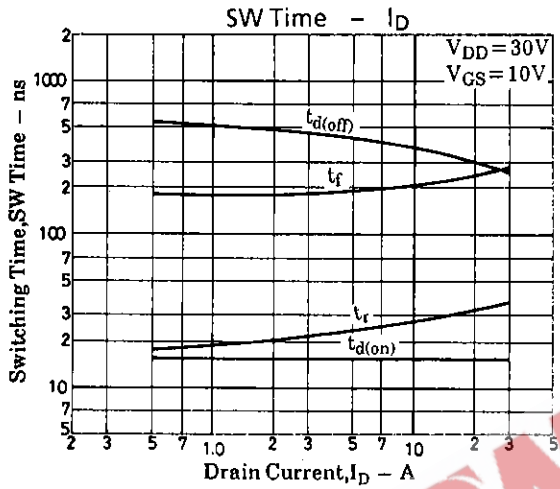
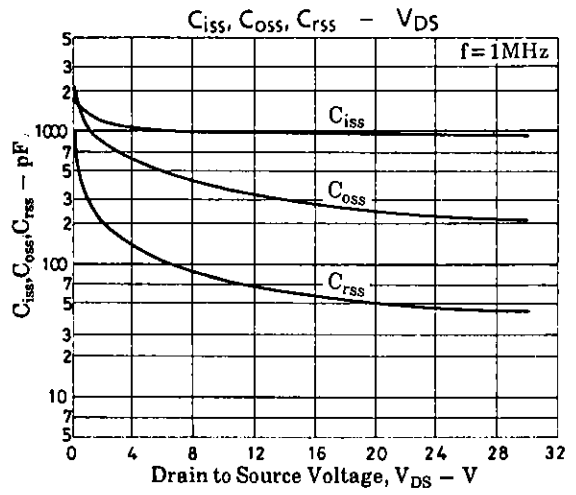
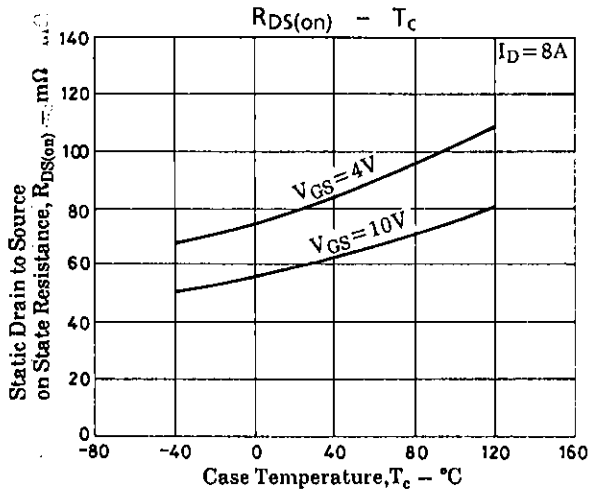


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			min	typ	max.	unit
Input Capacitance	C_{iss}	$V_{DS}=20V, f=1MHz$		950		pF
Output Capacitance	C_{oss}	$V_{DS}=20V, f=1MHz$		250		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=20V, f=1MHz$		50		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test 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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