

<b>SANYO</b>	No.4650	<b>2SK1908</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 2SK1908-applied equipment.
  - High-density surface mount applications.
  - Small size of 2SK1908-applied equipment.

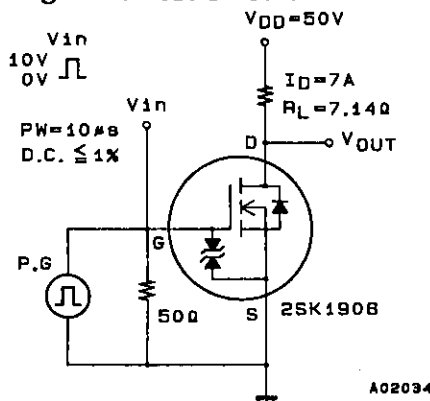
**Absolute Maximum Ratings at Ta = 25°C**

Drain-to-Source Voltage	V <sub>DSS</sub>		100	V
Gate-to-Source Voltage	V <sub>GSS</sub>		±20	V
Drain Current(DC)	I <sub>D</sub>		15	A
Drain Current(Pulse)	I <sub>DP</sub>	PW ≤ 10μs, duty cycle ≤ 1%	60	A
Allowable Power Dissipation	P <sub>D</sub>		1.65	W
		Tc = 25°C	60	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

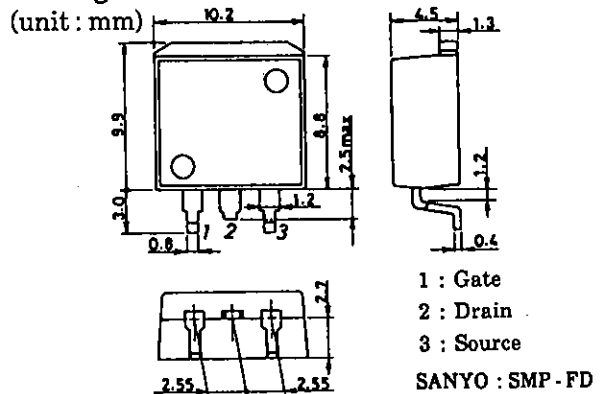
**Electrical Characteristics at Ta = 25°C**

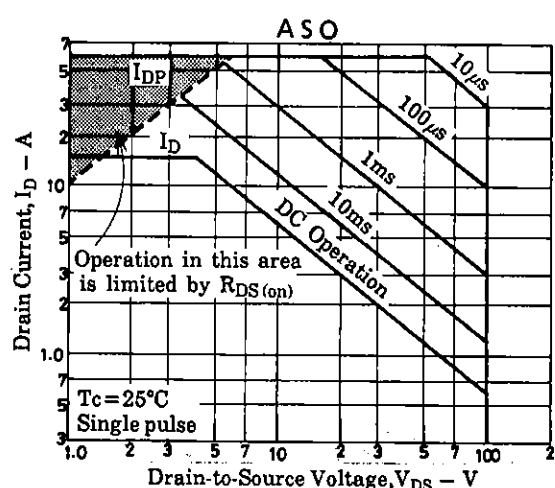
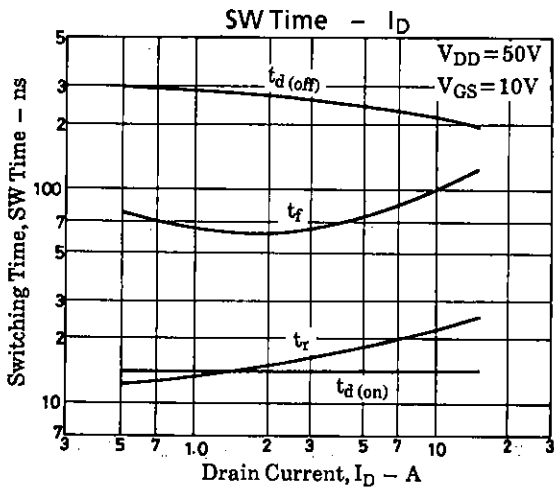
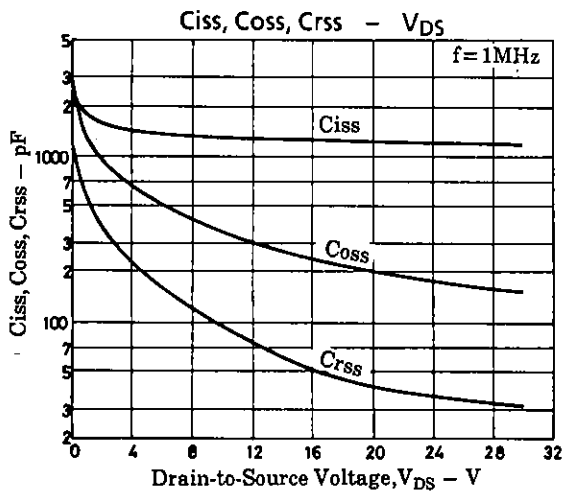
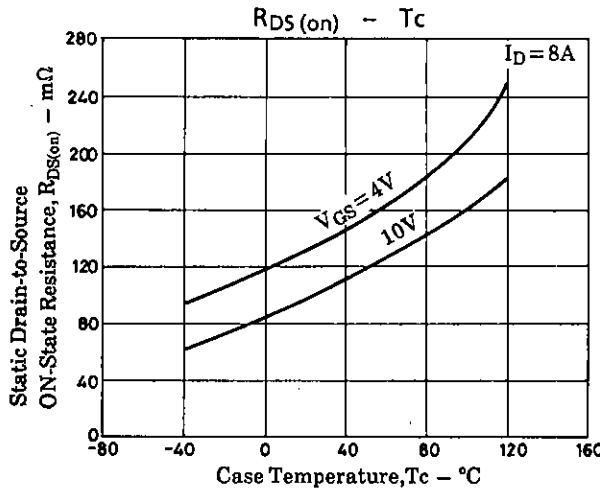
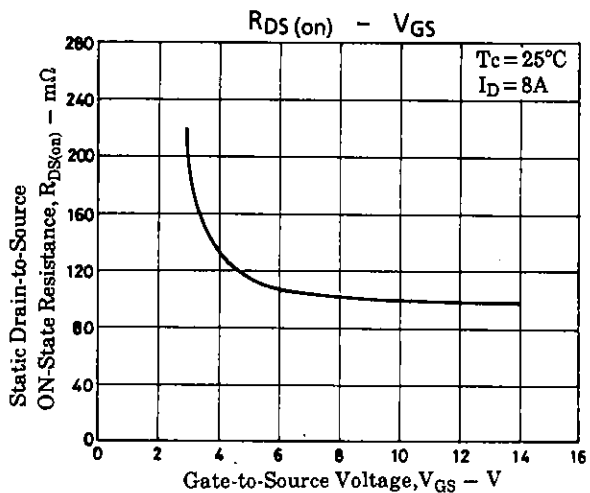
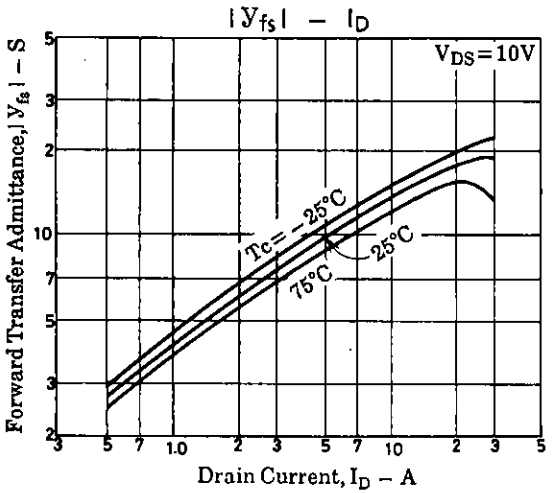
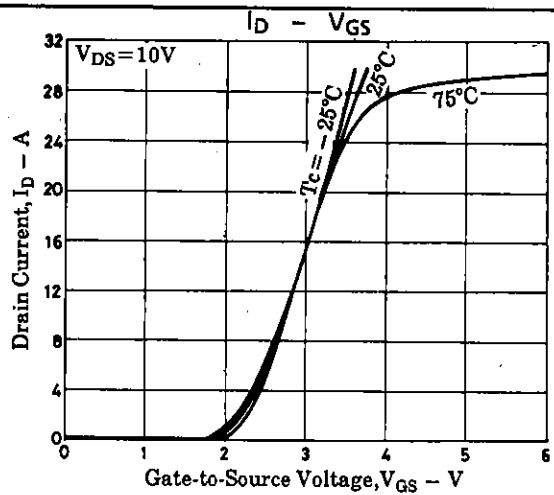
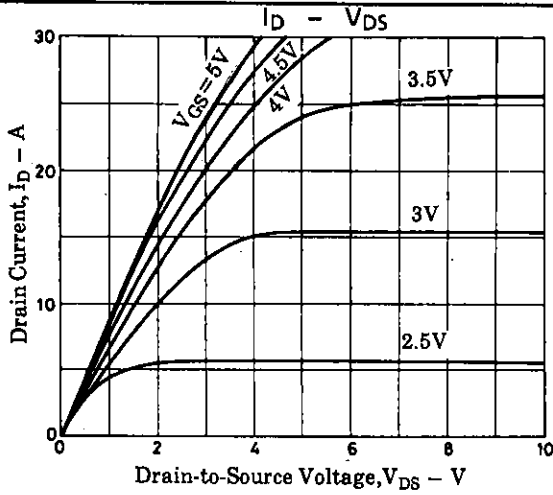
			min	typ	max	unit
D-S Breakdown Voltage	V(BR)DSS	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	100			V
G-S Breakdown Voltage	V(BR)GSS	I <sub>G</sub> = ±100μA, V <sub>DS</sub> = 0	±20			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 100V, V <sub>GS</sub> = 0			100	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±16V, V <sub>DS</sub> = 0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	1.0		2.0	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 7A	7	11.5		S
Static Drain-to-Source ON-State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 7A, V <sub>GS</sub> = 10V		100	135	mΩ
	R <sub>DS(on)</sub>	I <sub>D</sub> = 7A, V <sub>GS</sub> = 4V		135	180	mΩ
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		1230		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		200		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		40		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		14		ns
Rise Time	t <sub>r</sub>	∞		21		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	∞		230		ns
Fall Time	t <sub>f</sub>	∞		90		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 15A, V <sub>GS</sub> = 0	1.0	1.5		V

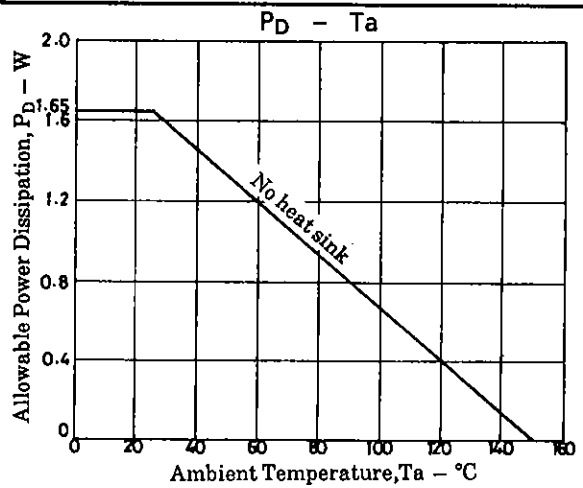
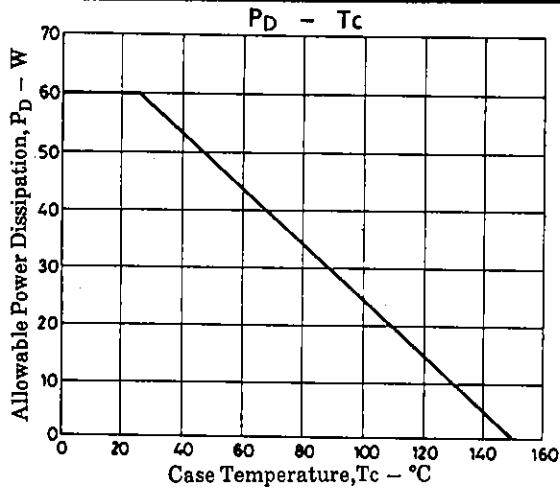
**Switching Time Test Circuit**



**Package Dimensions 2090A**







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