

<b>SANYO</b>	No.4648	<b>2SK1899</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 assembling time for 2SK1899-applied equipment.
  - High-density surface mount applications.
  - Small size of 2SK1899-applied equipment.

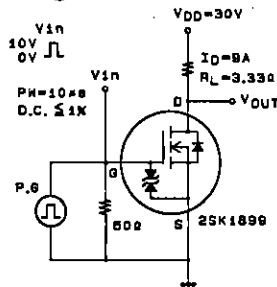
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain-to-Source Voltage	V <sub>DSS</sub>	60	V
Gate-to-Source Voltage	V <sub>GSS</sub>	± 20	V
Drain Current(DC)	I <sub>D</sub>	18	A
Drain Current(Pulse)	I <sub>DP</sub>	PW ≤ 10μs, duty cycle ≤ 1%	72 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
Avalanche Current	I <sub>AV</sub>	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 10V, L = 0.1mH, Tc = 25°C, Single pulse	18 A

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

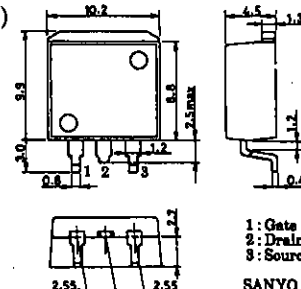
			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	60			V
G-S Breakdown Voltage	V <sub>(BR)GSS</sub>	I <sub>G</sub> = ± 100μA, V <sub>DS</sub> = 0	± 20			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 60V, V <sub>GS</sub> = 0			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> = 9A	8	13		S
Static Drain-to-Source ON-State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 9A, V <sub>GS</sub> = 10V		0.05	0.07	Ω
	R <sub>DS(on)</sub>	I <sub>D</sub> = 9A, V <sub>GS</sub> = 4V		0.07	0.095	Ω
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		330		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		65		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		14		ns
Rise Time	t <sub>r</sub>	∕		35		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	∕		250		ns
Fall Time	t <sub>f</sub>	∕		120		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 18A, V <sub>GS</sub> = 0		1.0	1.5	V

**Switching Time Test Circuit**

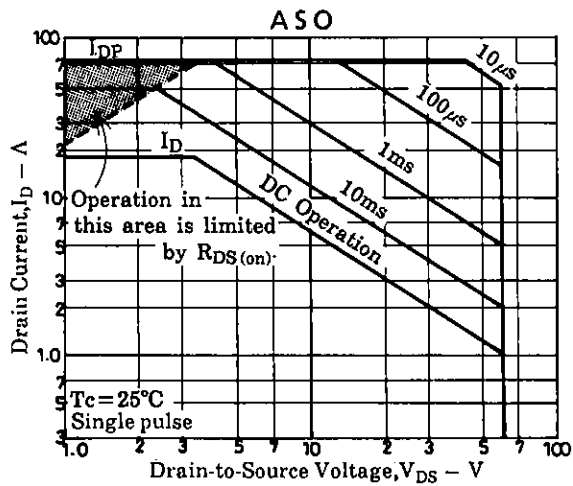
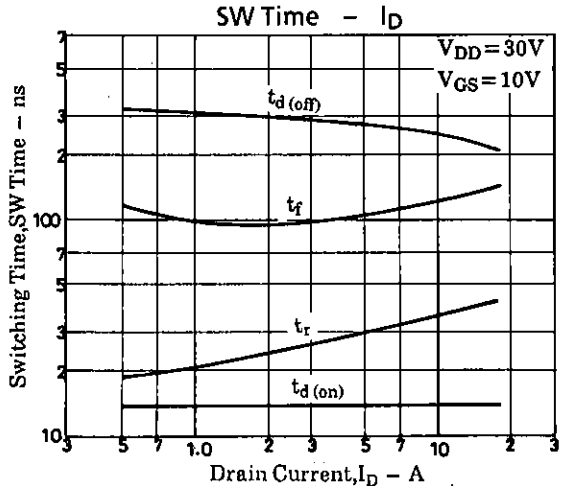
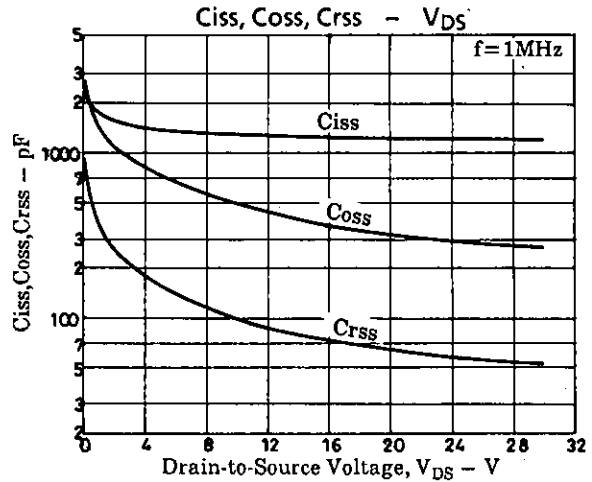
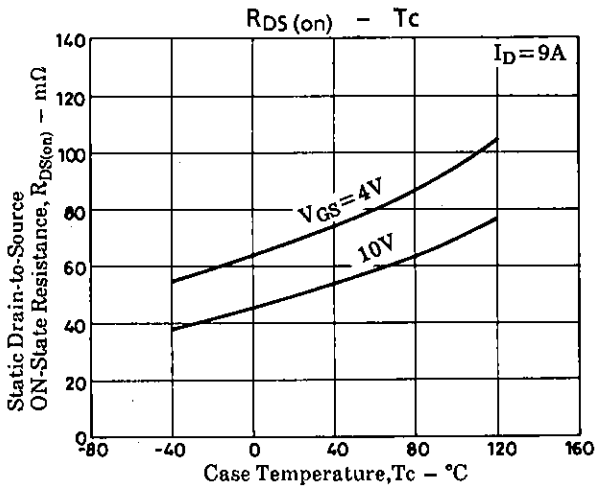
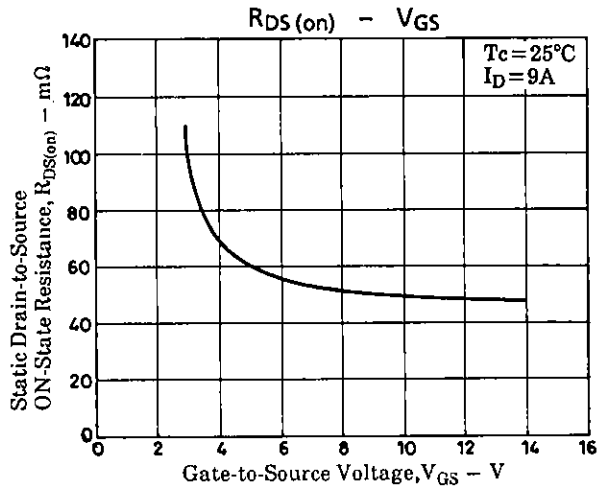
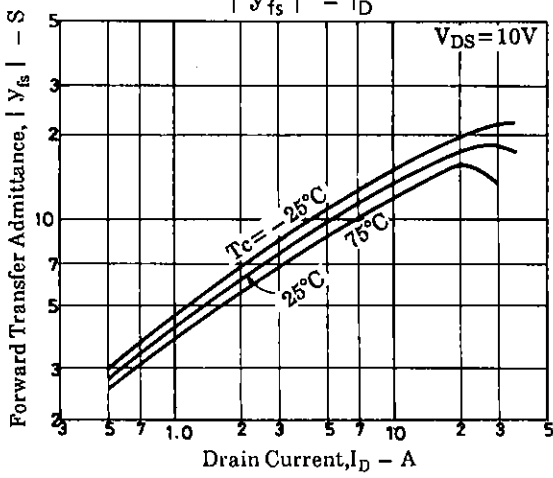
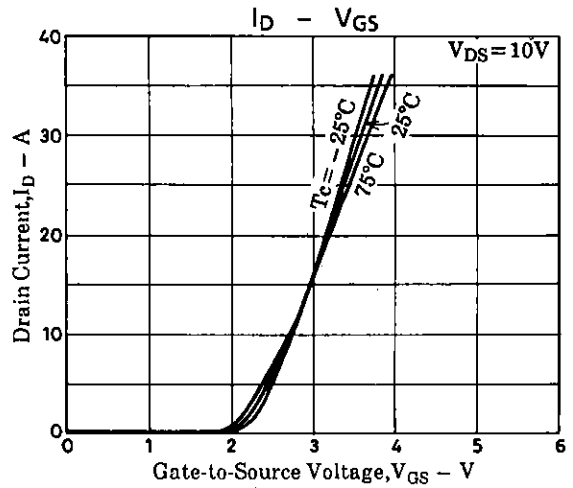
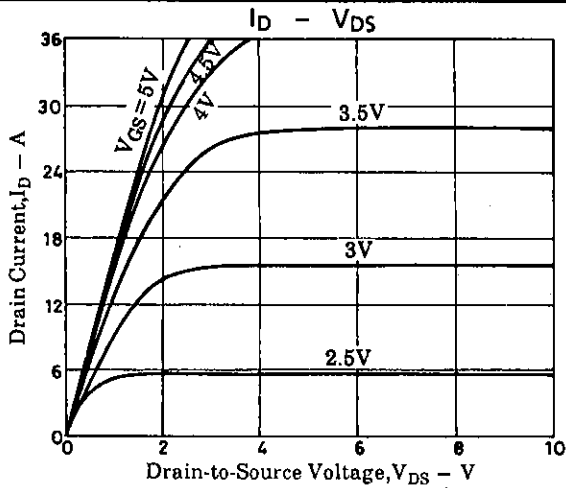


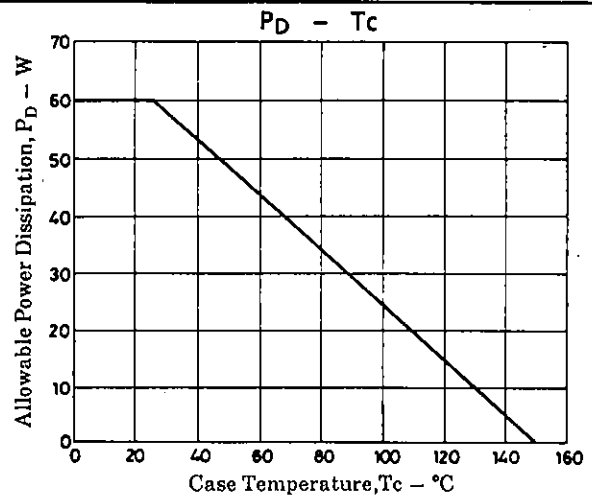
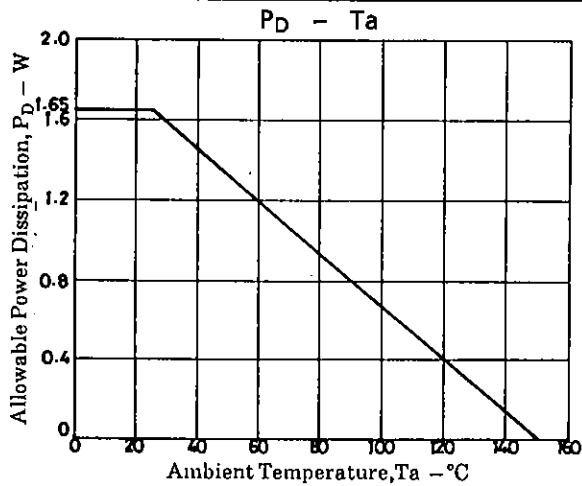
**Package Dimensions 2090A**

(unit : mm)



SANYO : SMP - FD





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