

<b>SANYO</b>	No.5106	<b>2SK2318</b>
		N-Channel Silicon MOSFET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- 2.5V drive.

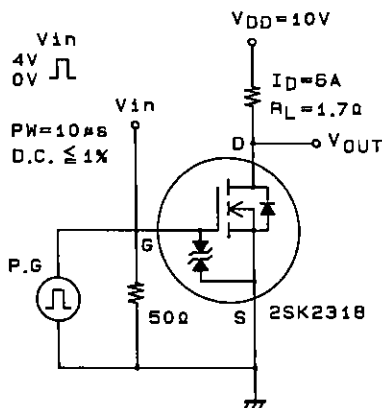
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain-to-Source Voltage	V <sub>DSS</sub>	20	V
Gate-to-Source Voltage	V <sub>GSS</sub>	±10	V
Drain Current (DC)	I <sub>D</sub>	12	A
Drain Current (Pulse)	I <sub>DP</sub>	PW ≤ 10μs, duty cycle ≤ 1%	48 A
Allowable Power Dissipation	P <sub>D</sub>	Tc = 25°C	30 W
			1 W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

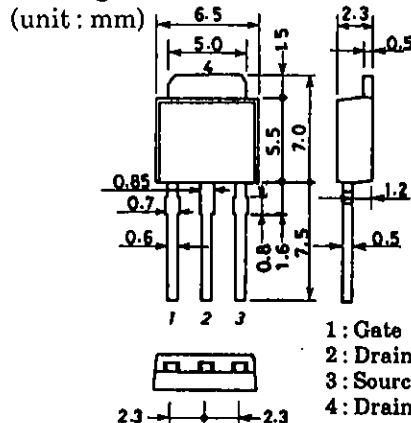
**Electrical Characteristics at Ta = 25°C**

			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	20			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 16V, V <sub>GS</sub> = 0			100	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±8V, V <sub>DS</sub> = 0			±10	μA
Gate-to-Source Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	0.4		1.4	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 6A	10	14		S
Static Drain-to-Source ON-State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 6A, V <sub>GS</sub> = 4V		30	38	mΩ
	R <sub>DS(on)</sub>	I <sub>D</sub> = 2A, V <sub>GS</sub> = 2.5V		40	58	mΩ
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		1000		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		750		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		400		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		25		ns
Rise Time	t <sub>r</sub>	∕		135		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	∕		135		ns
Fall Time	t <sub>f</sub>	∕		150		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 8A, V <sub>GS</sub> = 0		1.0	1.2	V

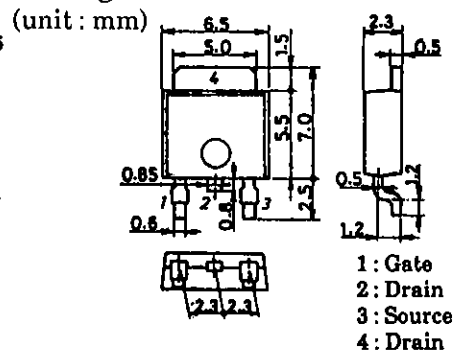
**Switching Time Test Circuit**



**Package Dimensions 2083B**

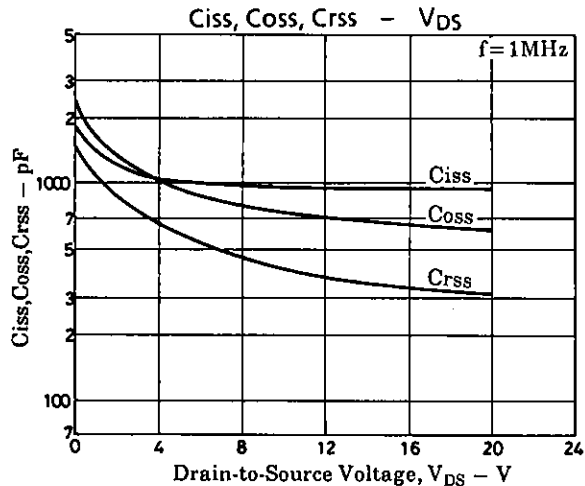
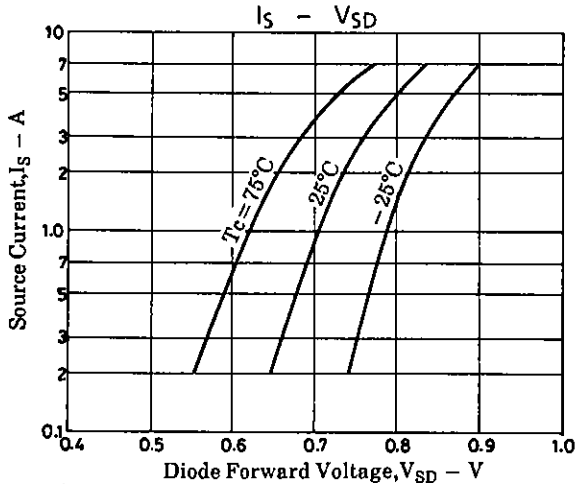
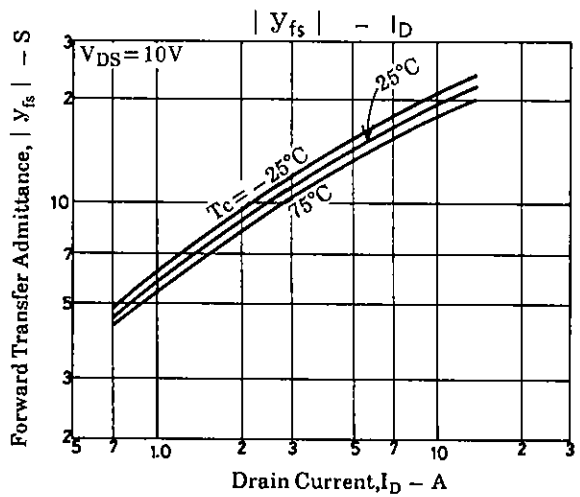
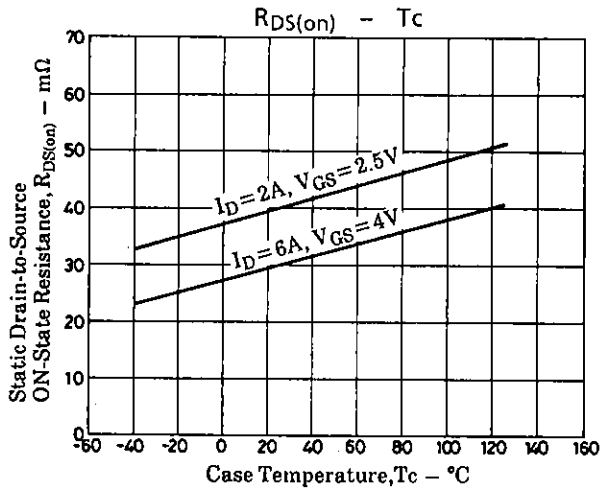
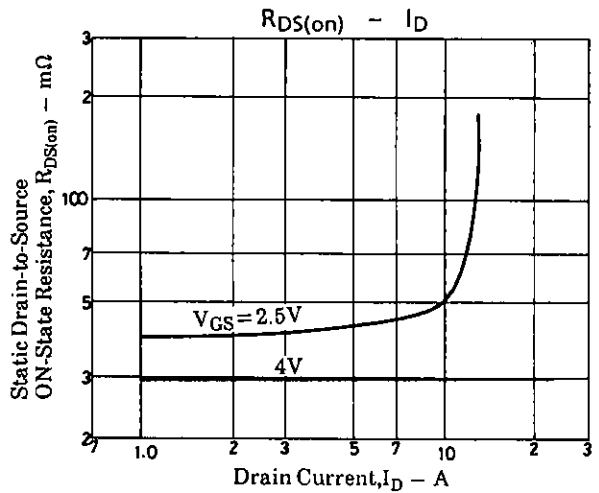
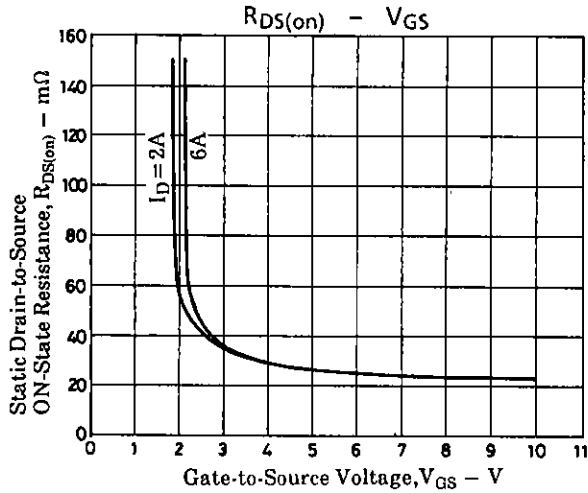
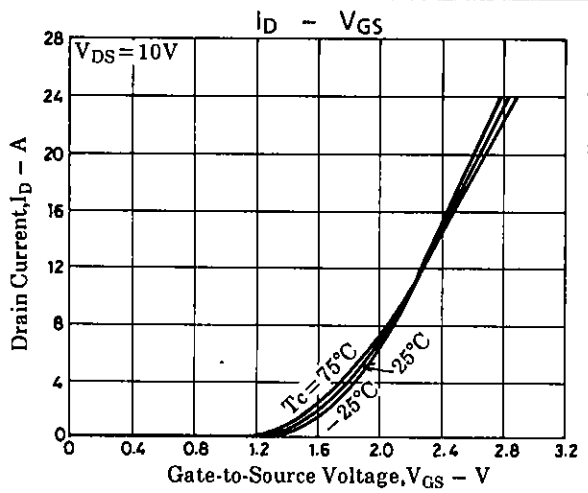
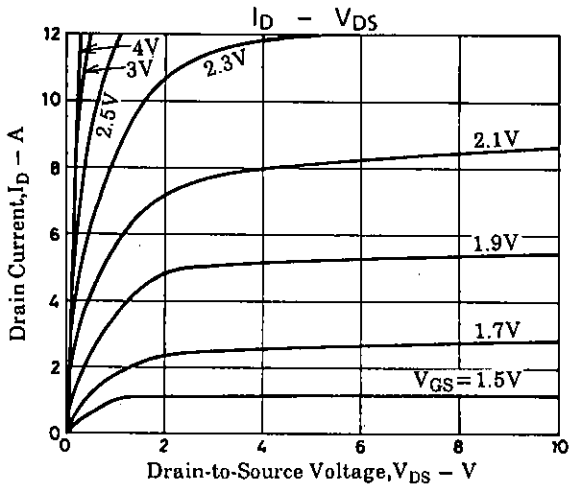


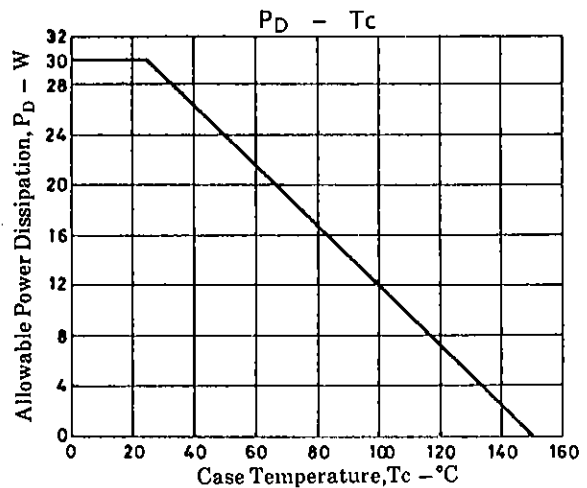
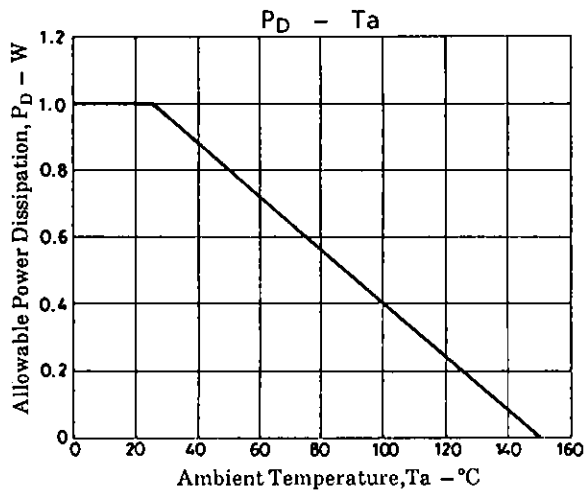
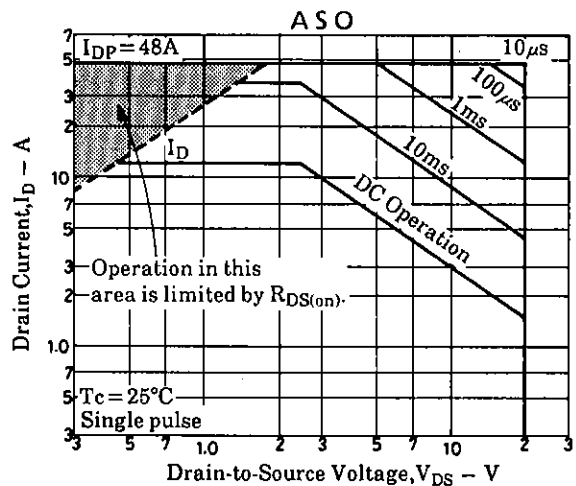
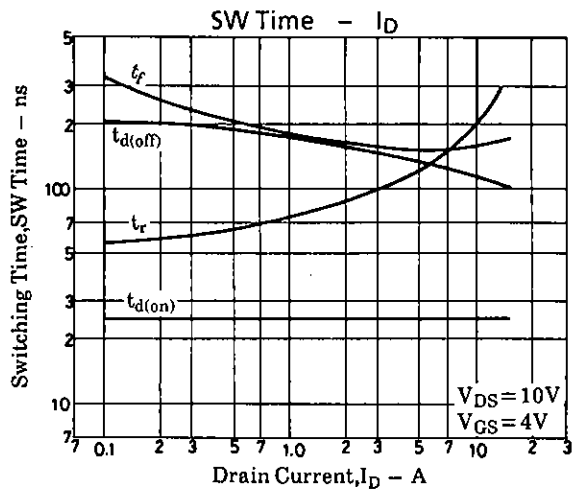
**Package Dimensions 2092B**



SANYO: TP-FA

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