

<b>SANYO</b>	No.4310	<b>2SK1921</b>
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

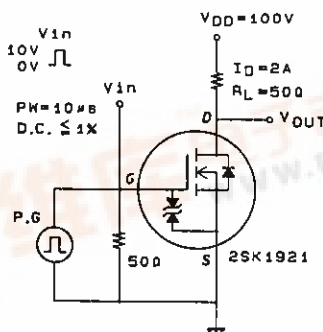
**Absolute Maximum Ratings at Ta = 25°C**

			unit
Drain-to-Source Voltage	V <sub>DSS</sub>	250	V
Gate-to-Source Voltage	V <sub>GSS</sub>	±30	V
Drain Current(DC)	I <sub>D</sub>	4	A
Drain Current(Pulse)	I <sub>DP</sub>	PW ≤ 10μs, duty cycle ≤ 1%	16
Allowable Power Dissipation	P <sub>D</sub>	T <sub>c</sub> = 25°C	1.75
			50
Channel Temperature	T <sub>ch</sub>		150
Storage Temperature	T <sub>stg</sub>		-55 to +150

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

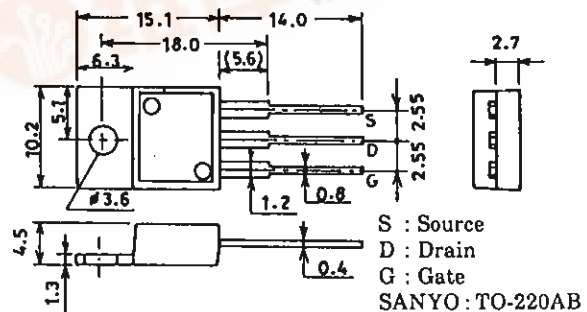
			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	250			V
G-S Breakdown Voltage	V <sub>(BR)GSS</sub>	I <sub>G</sub> = ±100μA, V <sub>DS</sub> = 0	±30			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 250V, V <sub>GS</sub> = 0			100	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±25V, V <sub>DS</sub> = 0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	1.5		2.5	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 2A	2.5	4		S
Static Drain-to-Source on State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 2A, V <sub>GS</sub> = 10V		0.5	0.7	Ω
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		600		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = 20V, f = 1MHz		100		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.		12		ns
Rise Time	t <sub>r</sub>	∕		15		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	∕		65		ns
Fall Time	t <sub>f</sub>	∕		55		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 4A, V <sub>GS</sub> = 0	1.0	1.5		V

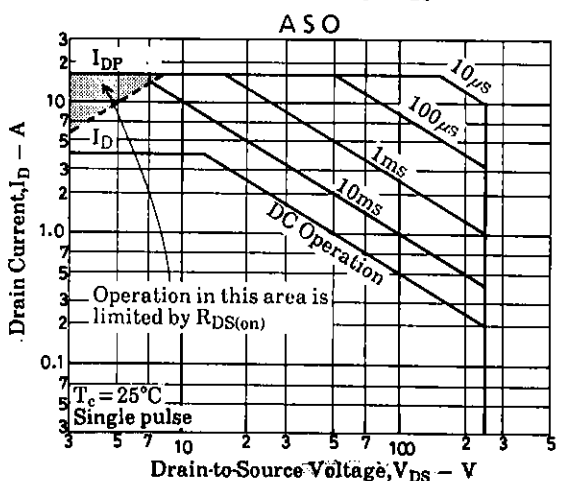
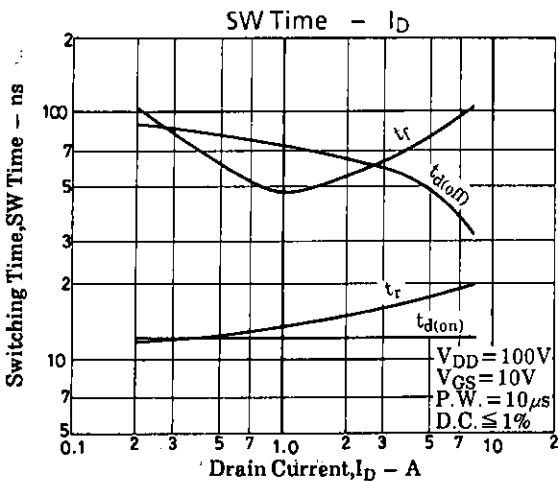
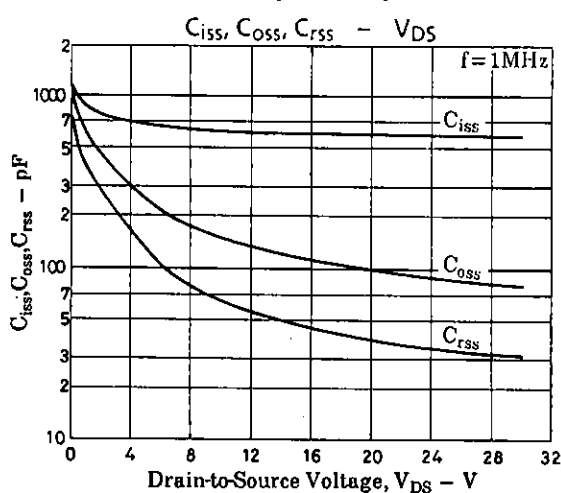
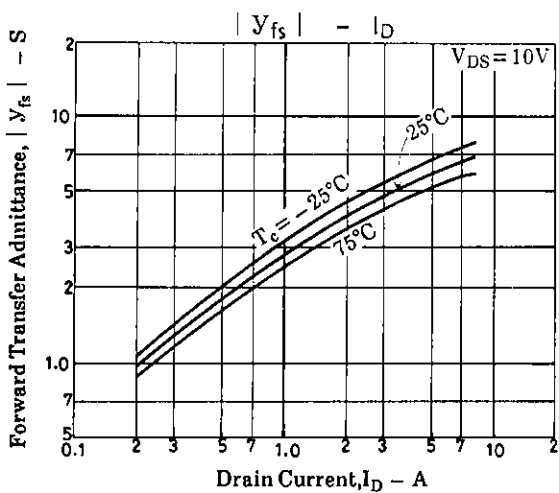
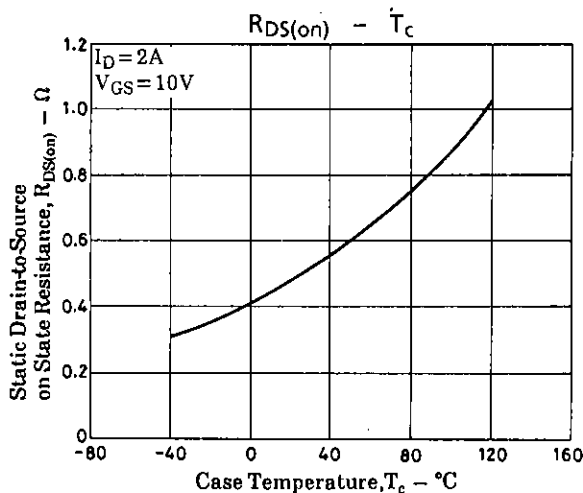
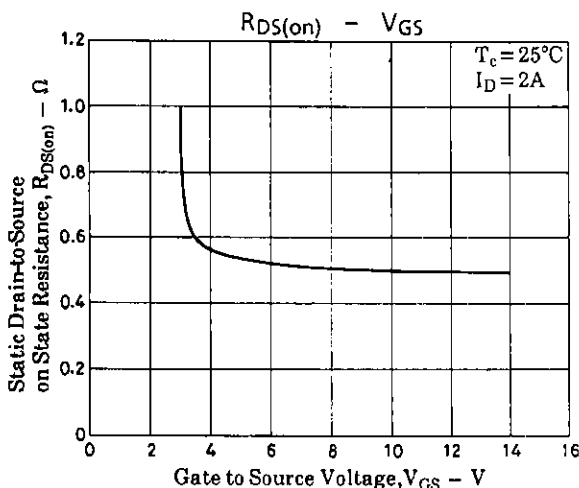
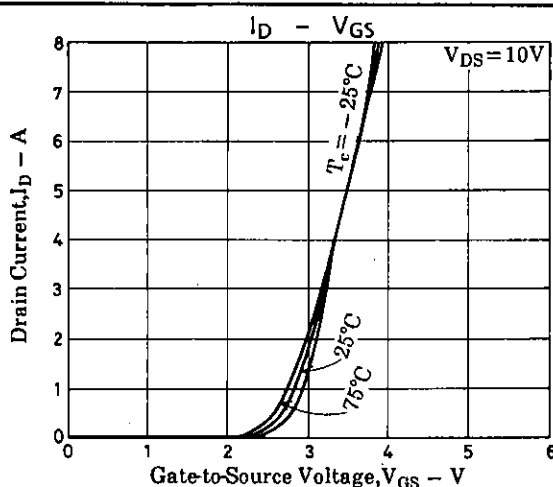
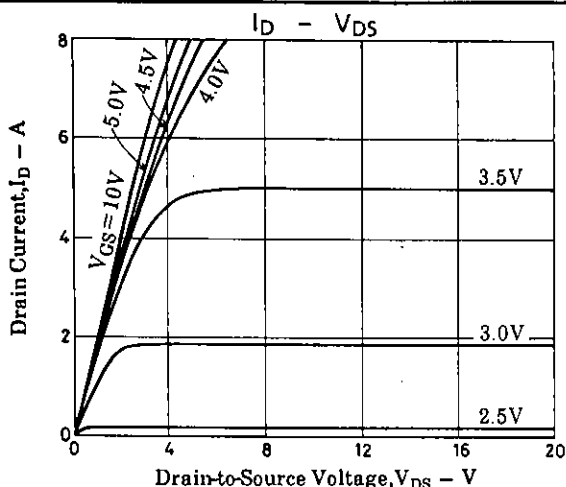
**Switching Time Test Circuit**



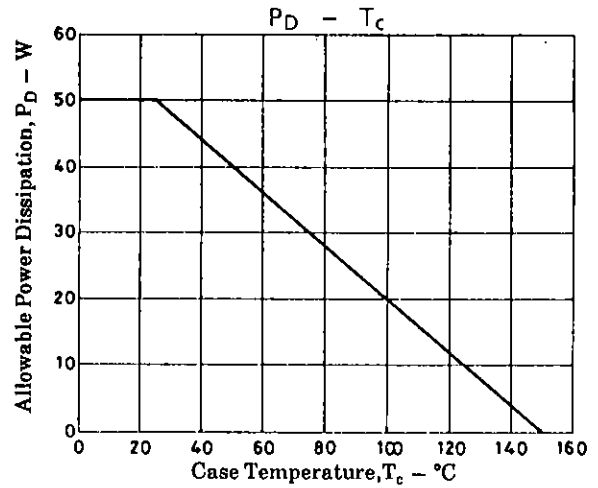
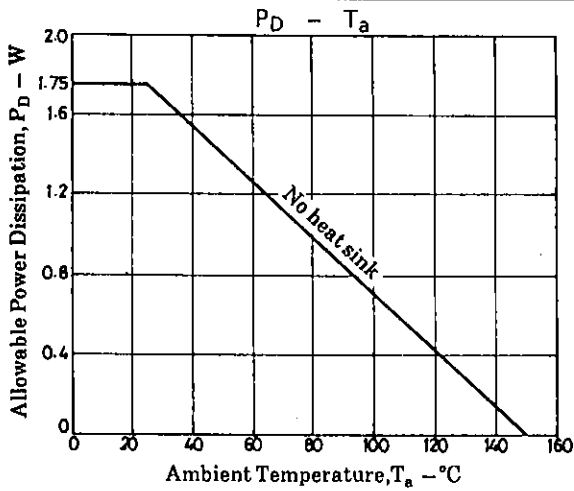
**Package Dimensions 2052B**

(unit : mm)





2SK1921



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