

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

Features

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

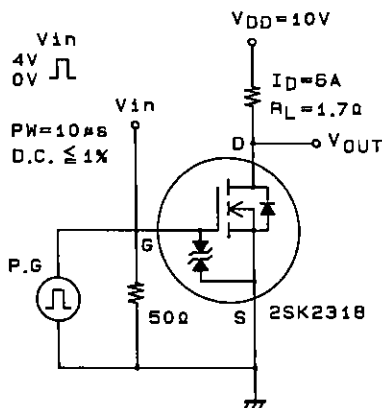
Absolute Maximum Ratings at Ta = 25°C

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

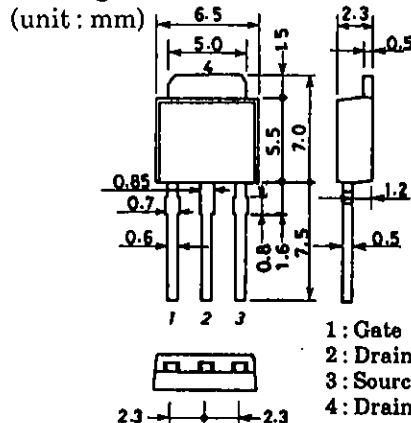
Electrical Characteristics at Ta = 25°C

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

Switching Time Test Circuit

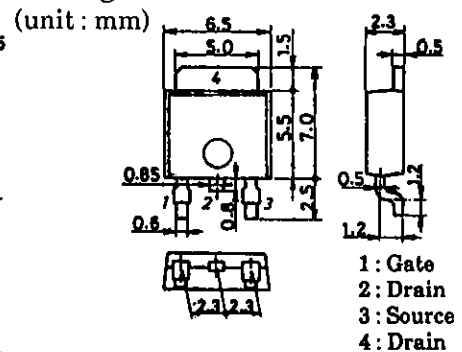


Package Dimensions 2083B

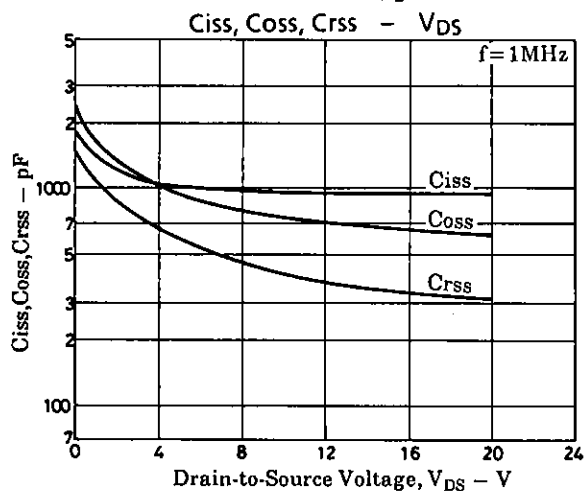
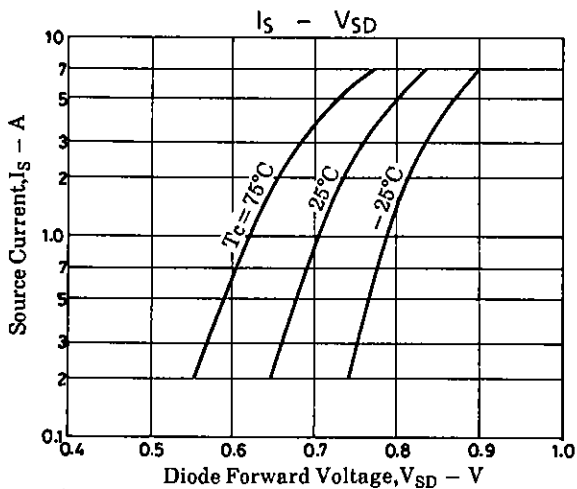
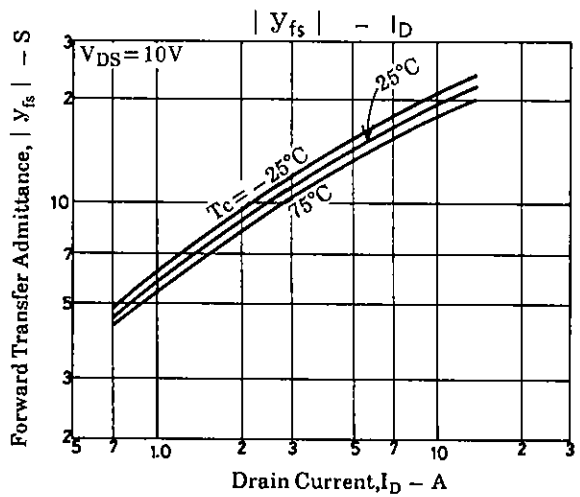
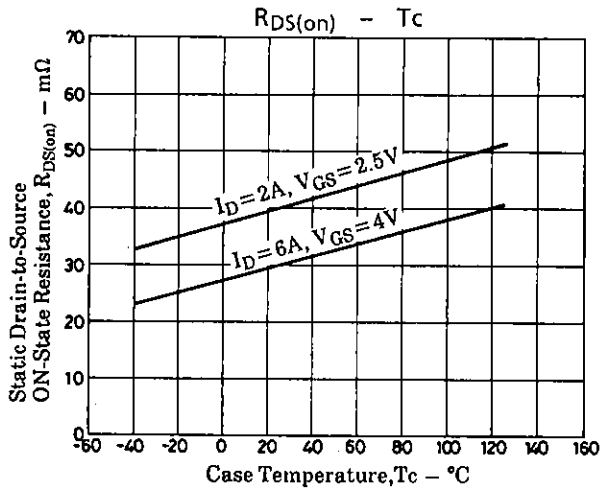
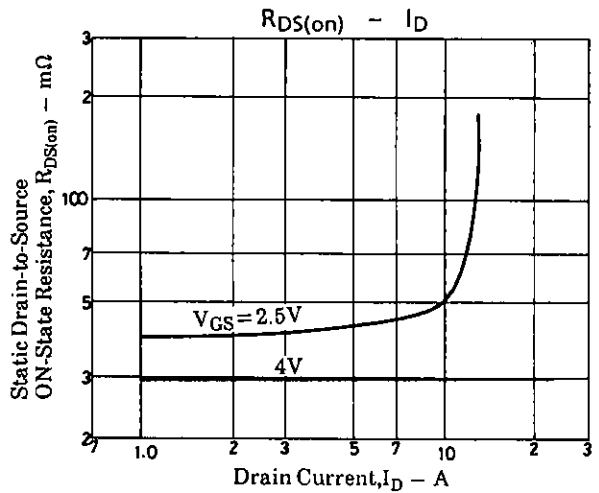
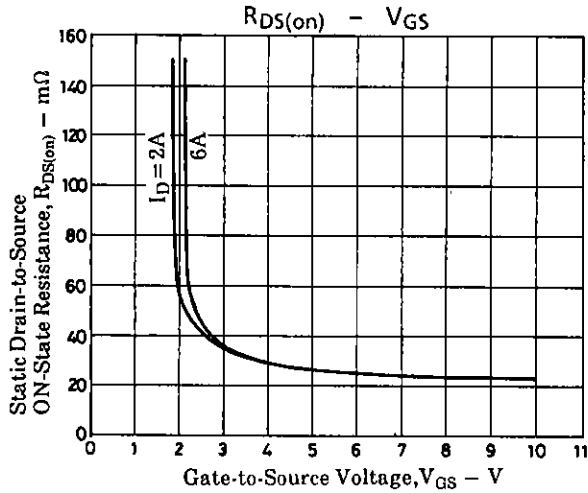
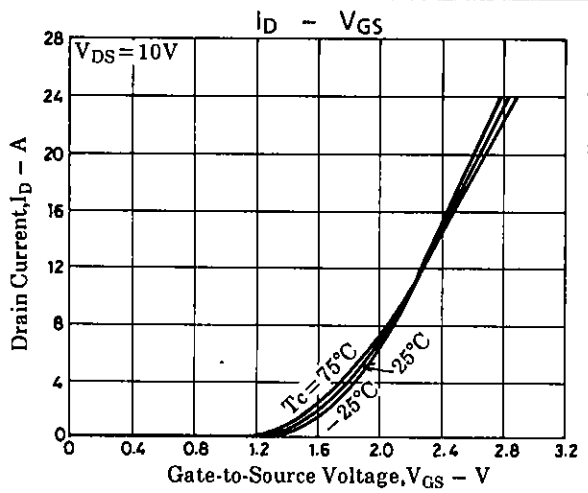
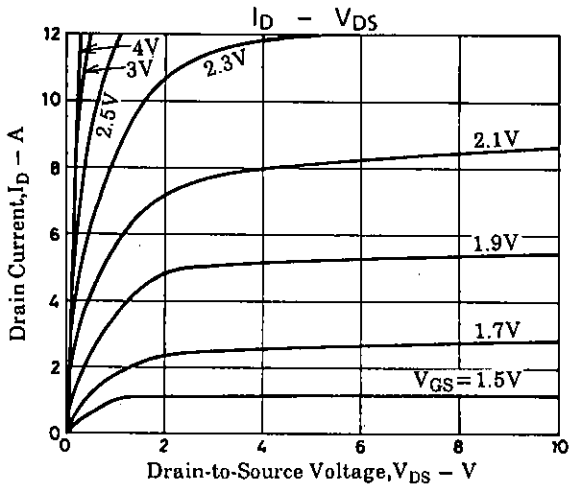


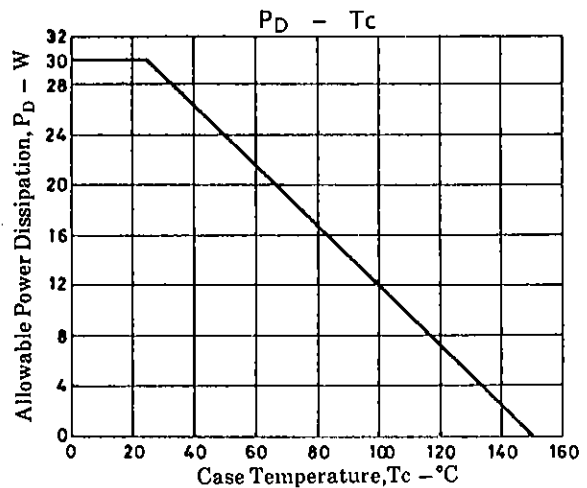
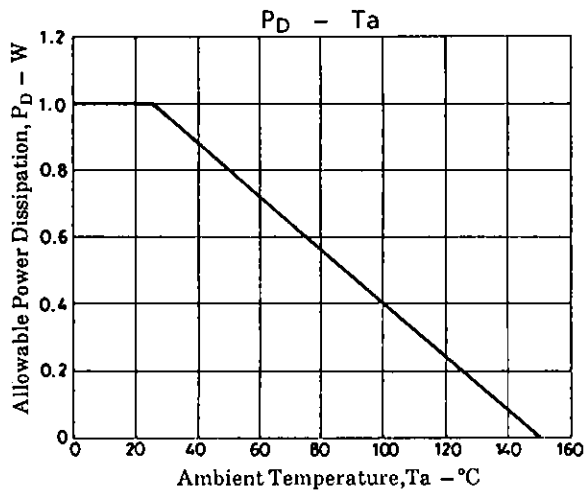
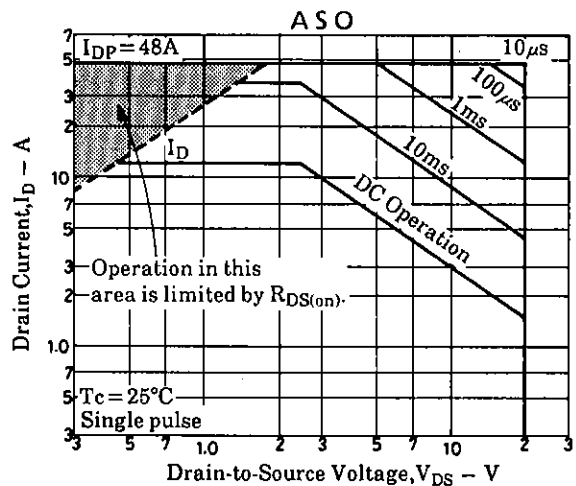
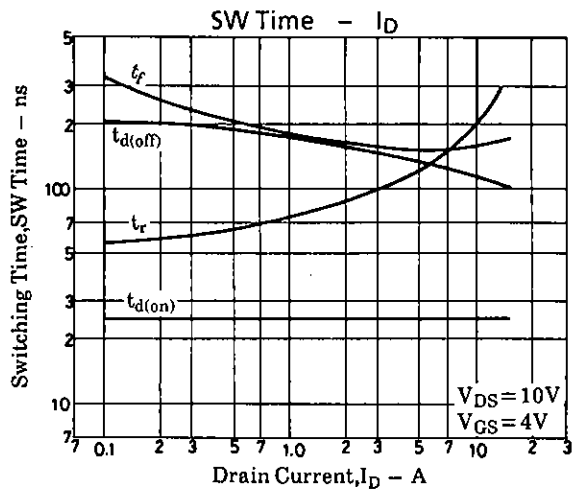
SANYO: TP

Package Dimensions 2092B



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