Ordering number:ENN5106

N-Channel Silicon MOSFET

2SK2318

Ultrahigh-Speed Switching Applications

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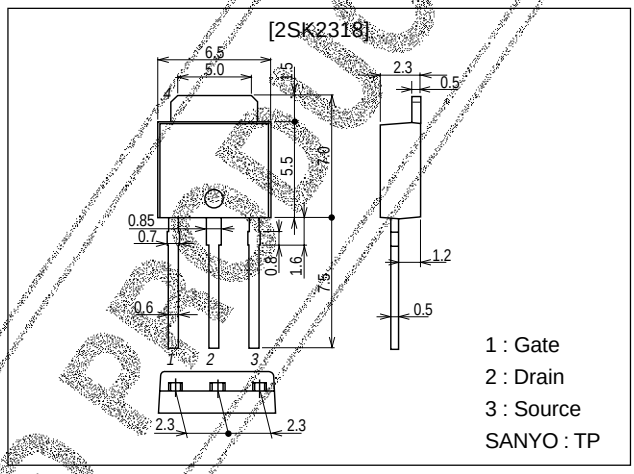
Features

- Low ON resistance.
- Ultrahigh-speed switching.
- 2.5V drive.

Package Dimensions

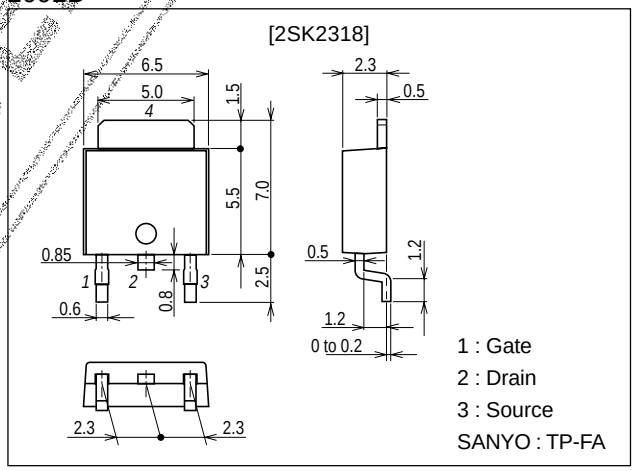
unit:mm

2083B



unit:mm

2092B



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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges,or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

SANYO Electric Co.,Ltd. Semiconductor Company
TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

Specifications

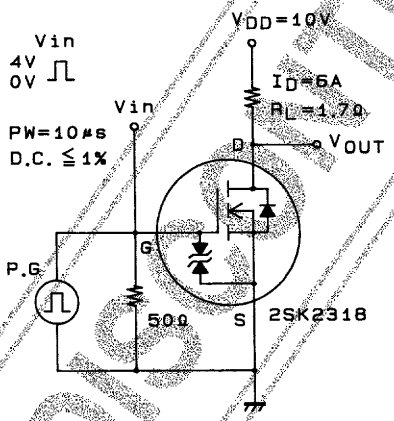
Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	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		30	W
		Tc=25°C	1	W
Channel Temperature	Tch		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

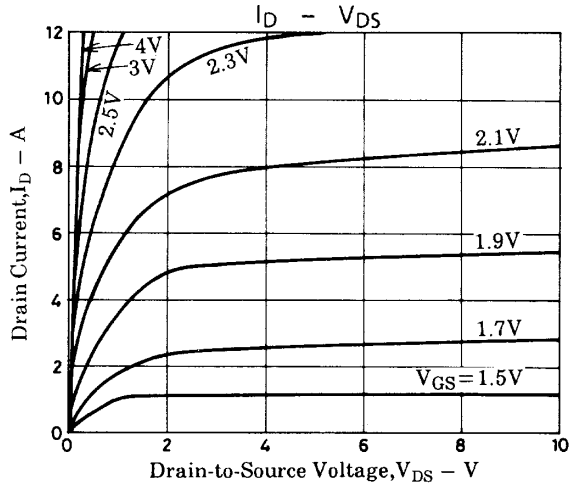
Electrical Characteristics at Ta = 25˚C

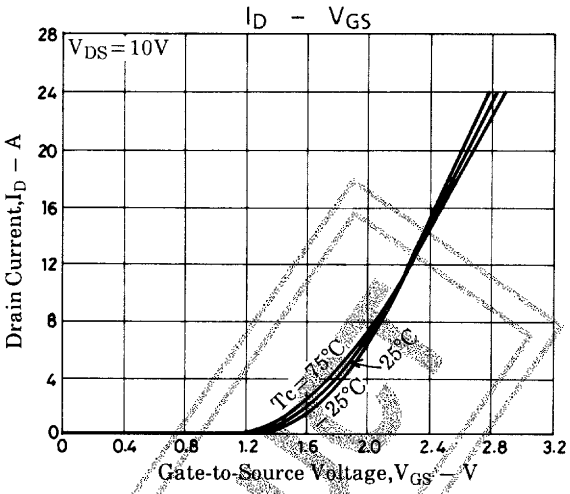
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0	20			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=16V, V_{GS}=0			100	μA
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=±8V, V_{DS}=0			±10	μA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=10V, I_D=1mA	0.4		1.4	V
Forward Transfer Admittance	| yfs |	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	Ciss	V_{DS}=10V, f=1MHz		1000		pF
Output Capacitance	Coss	V_{DS}=10V, f=1MHz		750		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, f=1MHz		400		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		25		ns
Rise Time	t_r	See specified Test Circuit		135		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		135		ns
Fall Time	t_f	See specified Test Circuit		150		ns
Diode Forward Voltage	V_{SD}	I_S=8A, V_{GS}=0		1.0	1.2	V

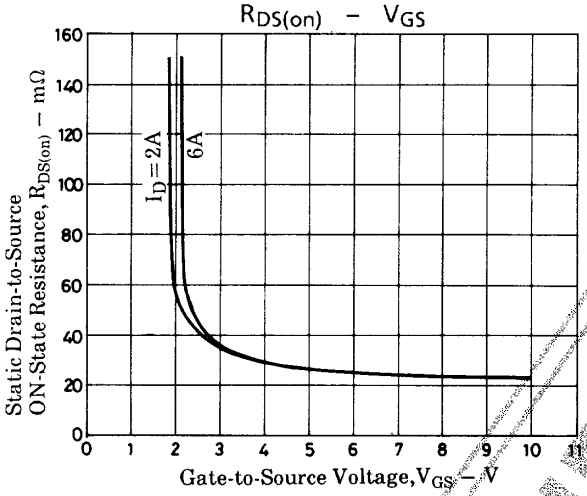
Switching Time Test Circuit

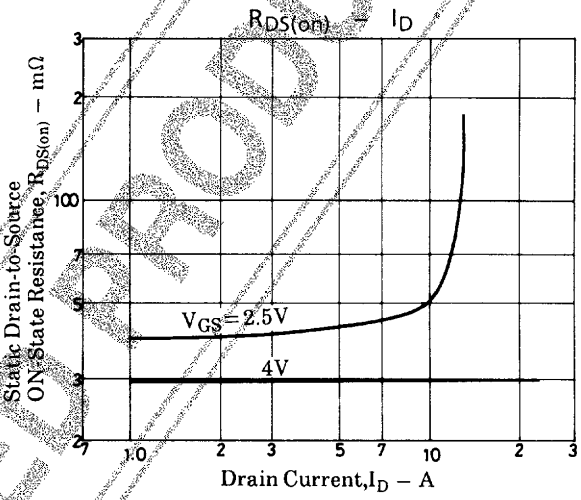


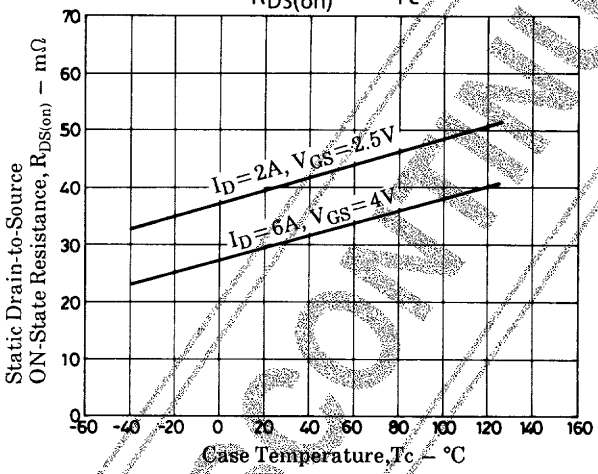
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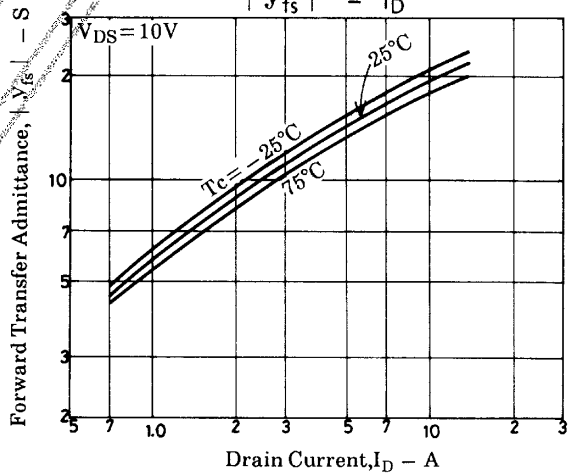


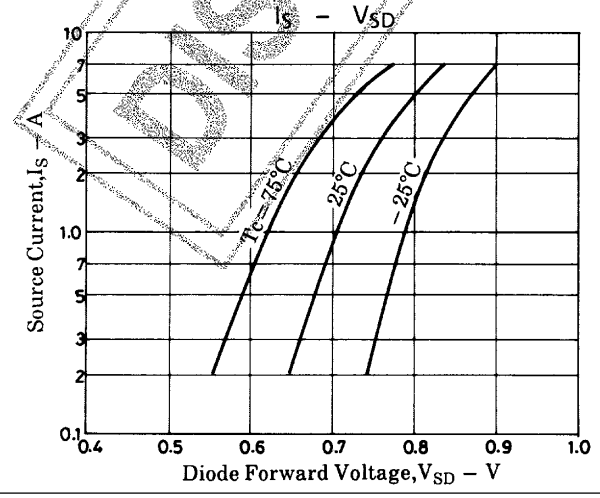


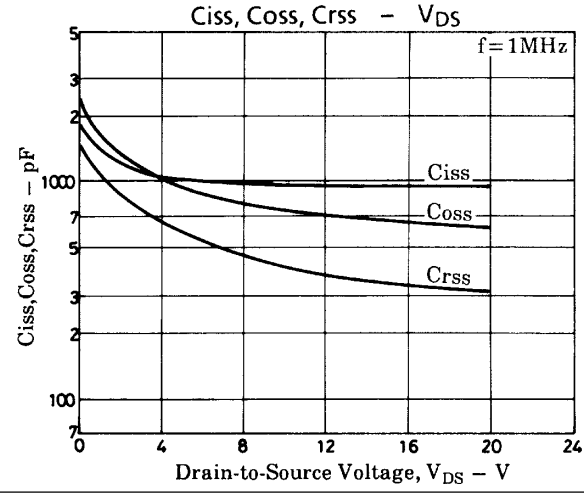




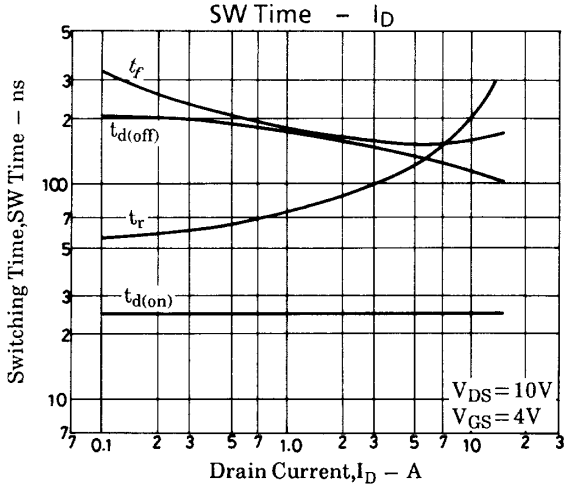


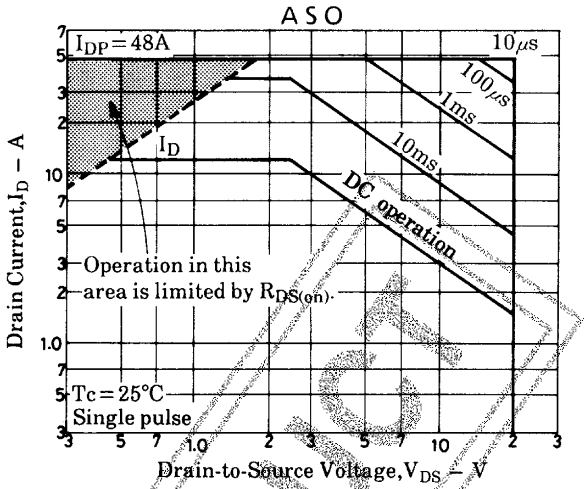


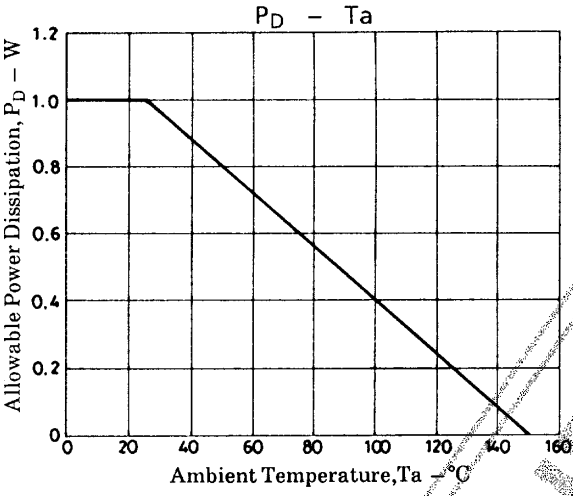


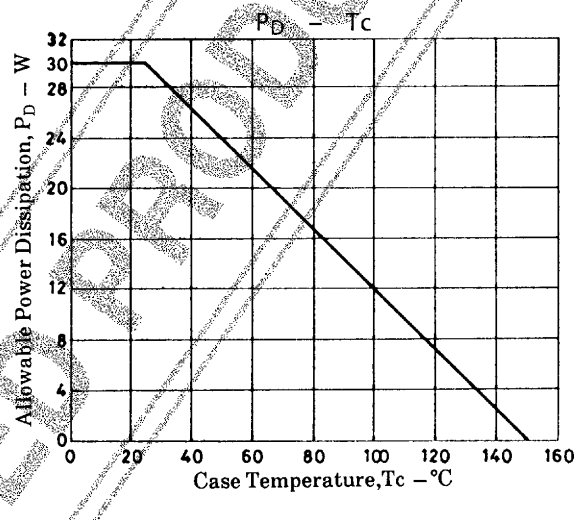


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