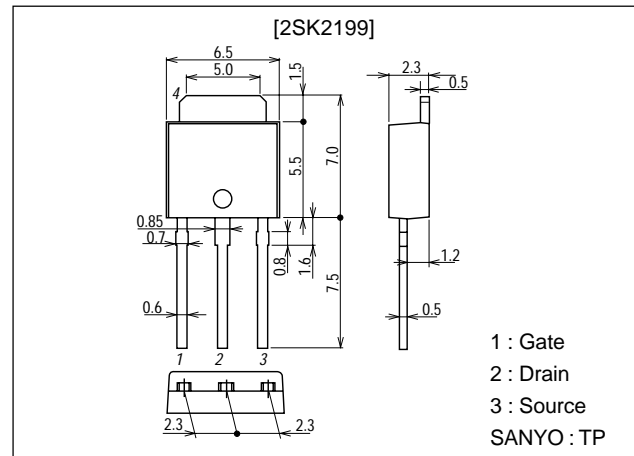


**SANYO****2SK2199****Ultrahigh-Speed Switching Applications****Features**

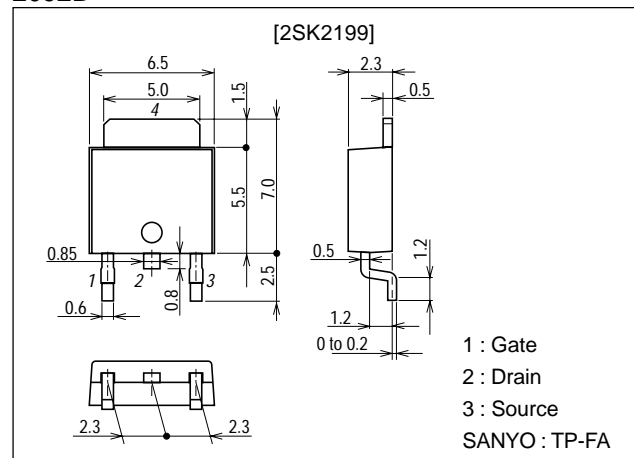
- Low ON resistance.
- Ultrahigh-speed switching.
- Low-voltage drive.

**Package Dimensions**

unit:mm

**2083B**

unit:mm

**2092B**

■ Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.

■ 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**

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71599TH (KT)/41894HO (KOTO) BX-0119 No.4557-1/4

## Specifications

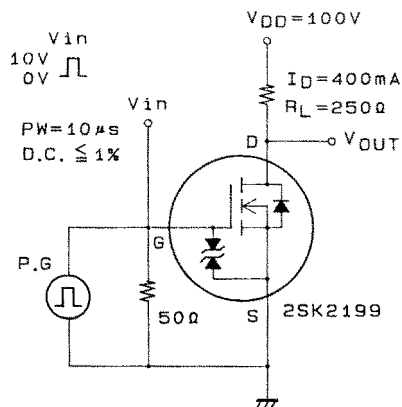
### Absolute Maximum Ratings at Ta = 25°C

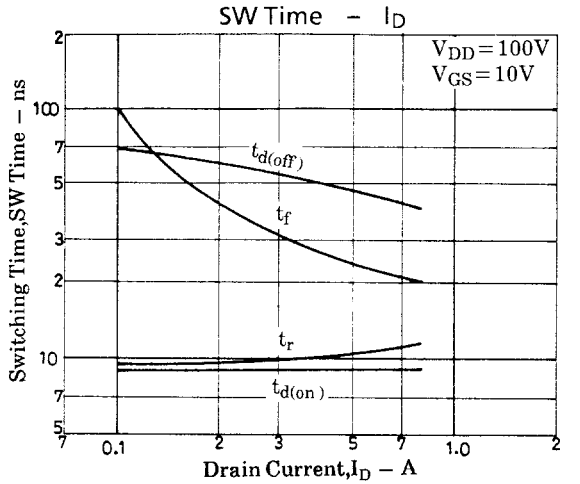
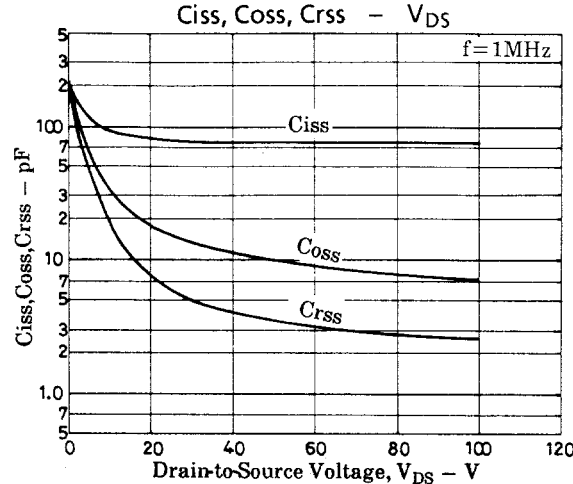
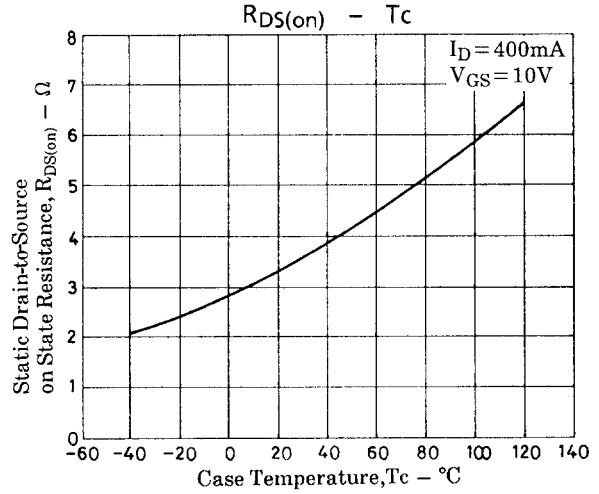
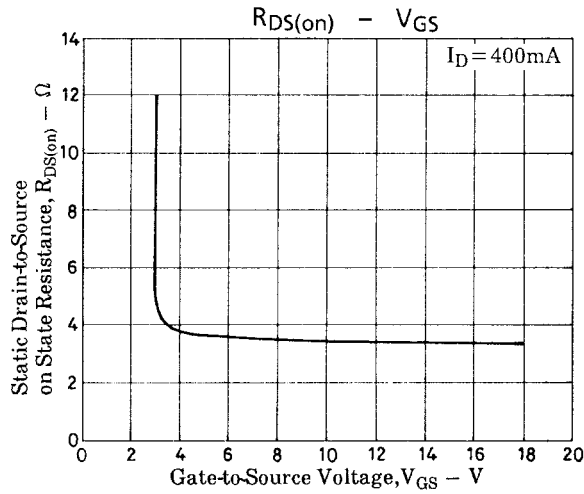
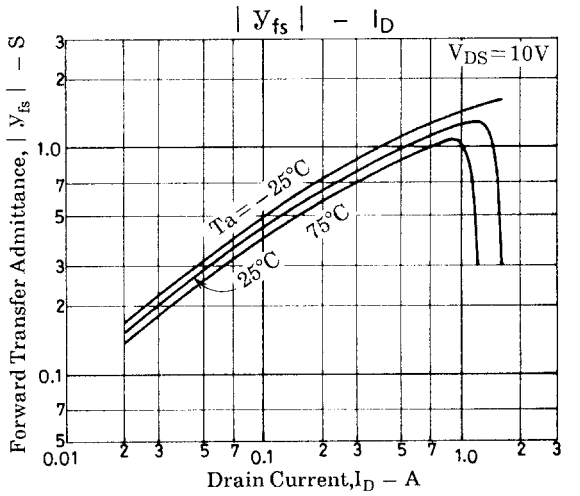
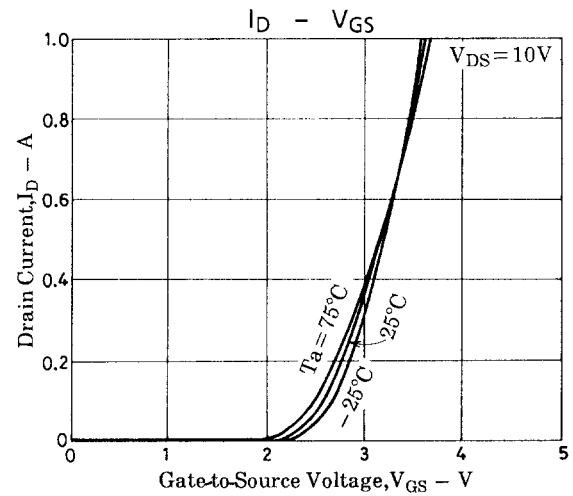
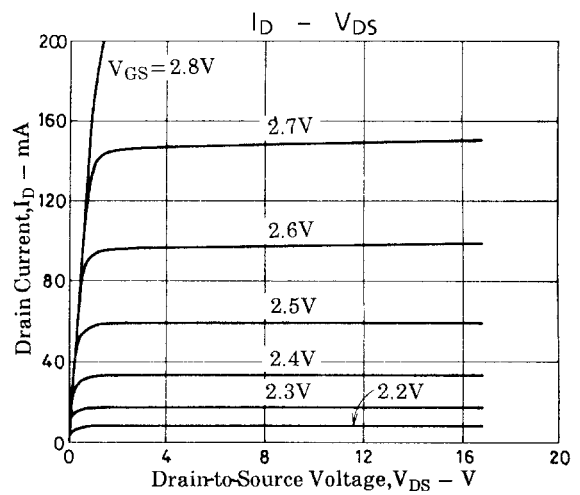
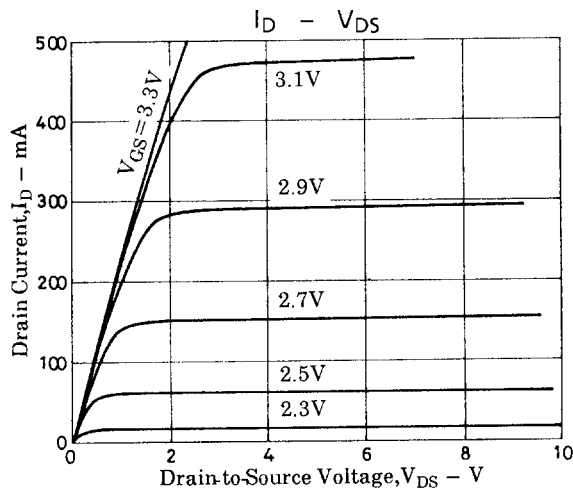
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DS}$		250	V
Gate-to-Source Voltage	$V_{GS}$		±20	V
Drain Current (DC)	$I_D$		800	mA
Drain Current (Pulse)	$I_{DP}$	$PW \leq 10\mu s$ , duty cycle $\leq 1\%$	3.2	A
Allowable Power Dissipation	$P_D$		1	W
		$T_c = 25^\circ C$	15	W
Channel Temperature	$T_{ch}$		150	°C
Storage Temperature	$T_{stg}$		-55 to +150	°C

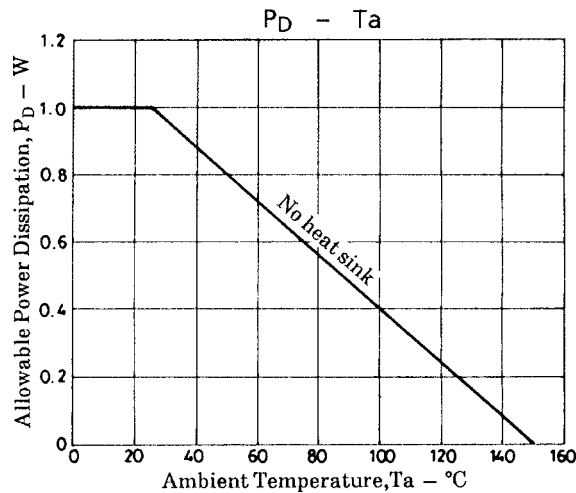
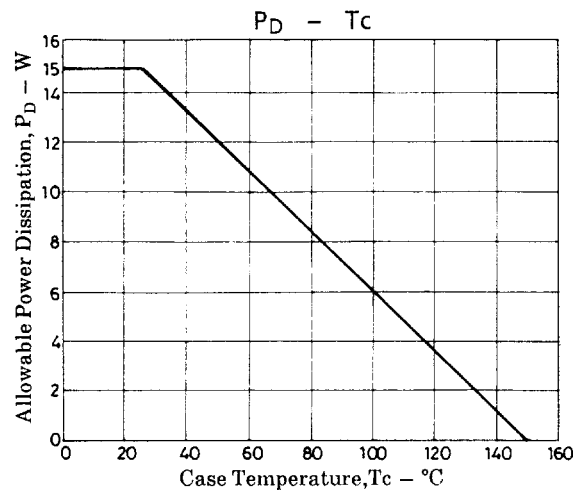
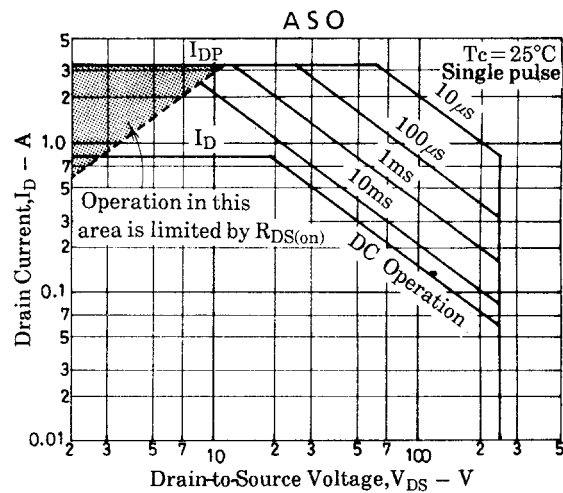
### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA$ , $V_{GS} = 0$	250			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 250V$ , $V_{GS} = 0$			100	μA
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 18V$ , $V_{DS} = 0$			±10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V$ , $I_D = 1mA$	1.5		2.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V$ , $I_D = 400mA$	0.6	0.9		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)}$	$I_D = 400mA$ , $V_{GS} = 10V$		3.5	5	Ω
Input Capacitance	$C_{iss}$	$V_{DS} = 20V$ , $f = 1MHz$		80		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V$ , $f = 1MHz$		20		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V$ , $f = 1MHz$		8		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit		10		ns
Rise Time	$t_r$	See specified Test Circuit		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit		65		ns
Fall Time	$t_f$	See specified Test Circuit		30		ns
Diode Forward Voltage	$V_{SD}$	$I_S = 800mA$ , $V_{GS} = 0$		1.0		V

### Switching Time Test Circuit







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