



No.4557

2SK2199

N-Channel MOS Silicon FET
Very High-Speed
Switching Applications

Features

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

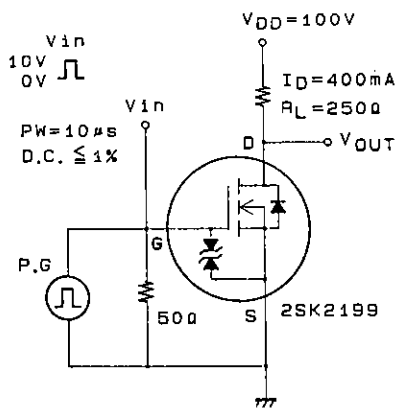
Absolute Maximum Ratings at Ta = 25°C

			unit
Drain-to-Source Voltage	V _{DSS}	250	V
Gate-to-Source Voltage	V _{GSS}	±20	V
Drain Current(DC)	I _D	800	mA
Drain Current(Pulse)	I _{DP}	PW ≤ 10μs, duty cycle ≤ 1%	3.2 A
Allowable Power Dissipation	P _D	1	W
		Tc = 25°C	15 W
Channel Temperature	Tch	150	°C
Storage Temperature	Tstg	-55 to +150	°C

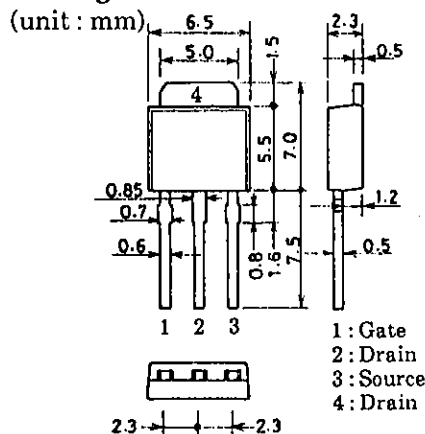
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	V _{(BR)DSS}	I _D = 1mA, V _{GS} = 0	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} = ±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	∕		10		ns
Turn-OFF Delay Time	t _{d(off)}	∕		65		ns
Fall Time	t _f	∕		30		ns
Diode Forward Voltage	V _{SD}	I _S = 800mA, V _{GS} = 0		1.0		V

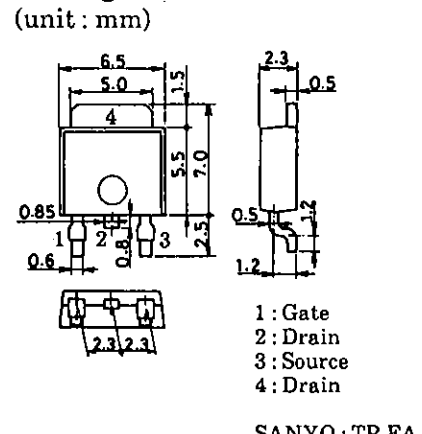
Switching Time Test Circuit

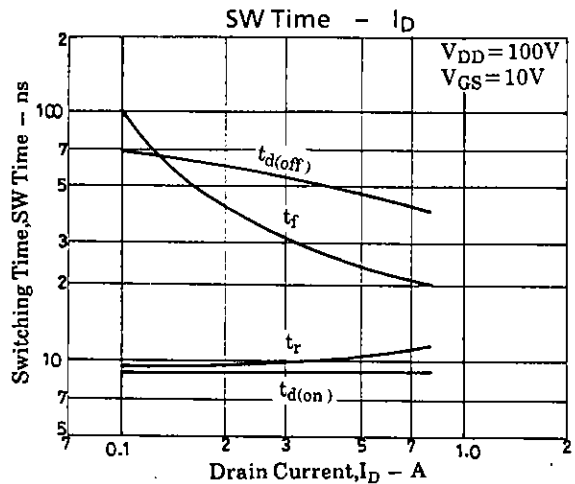
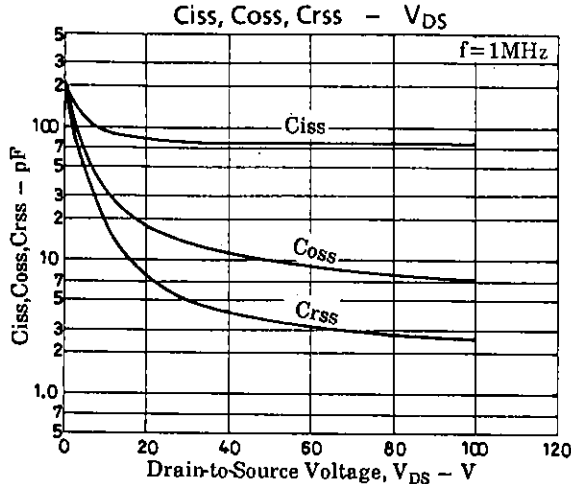
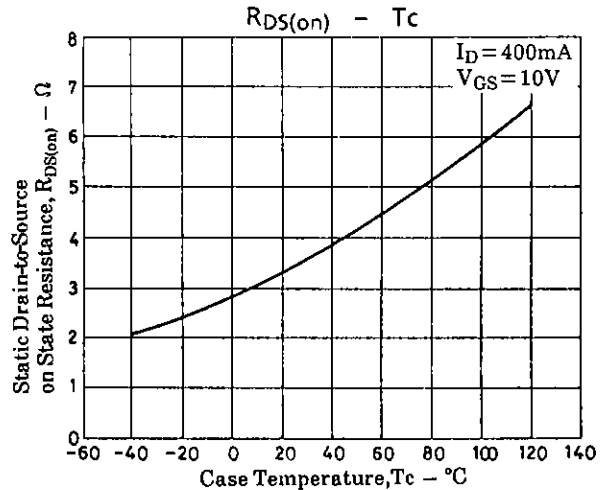
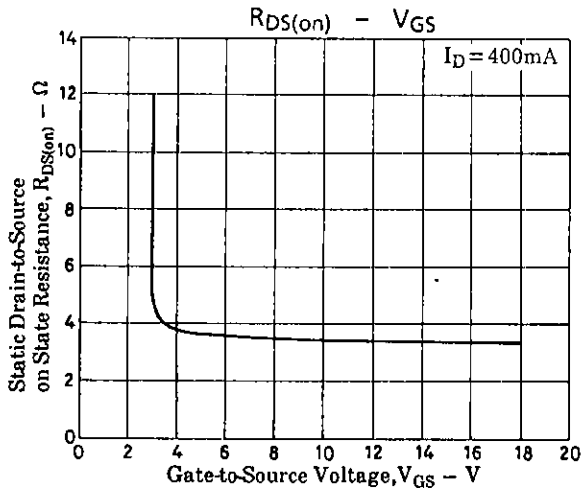
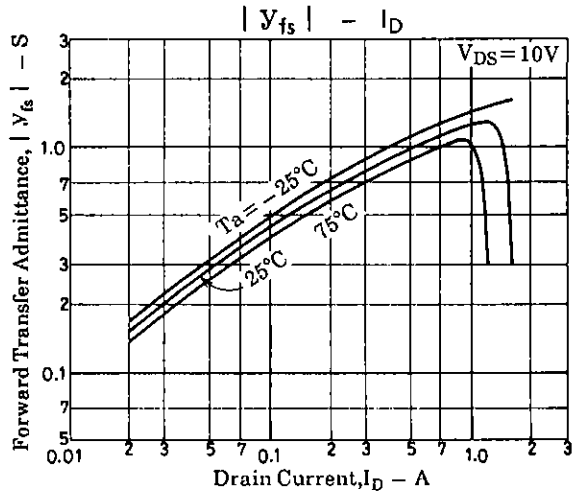
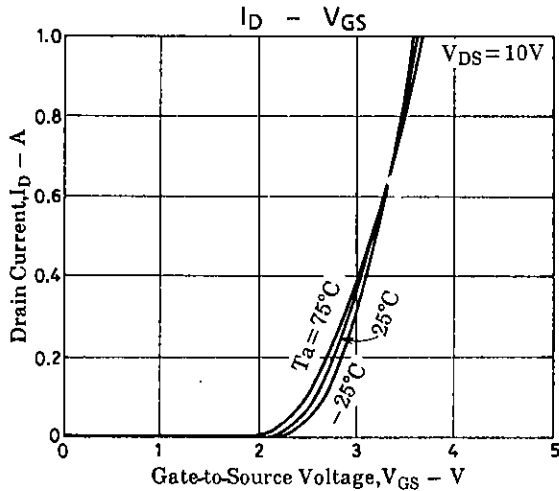
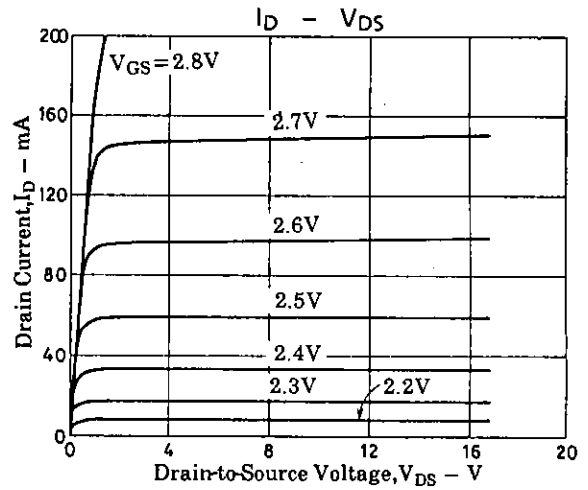
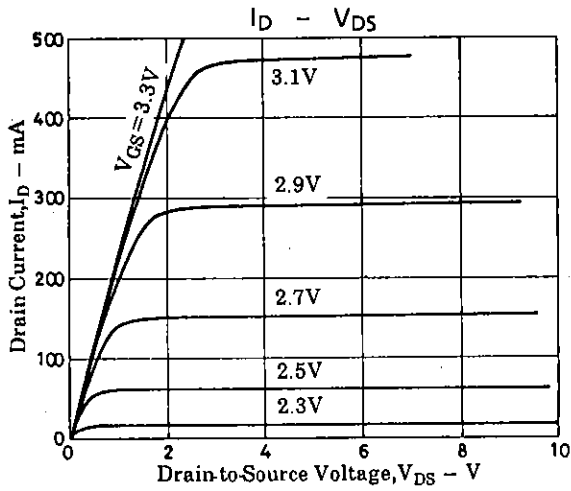


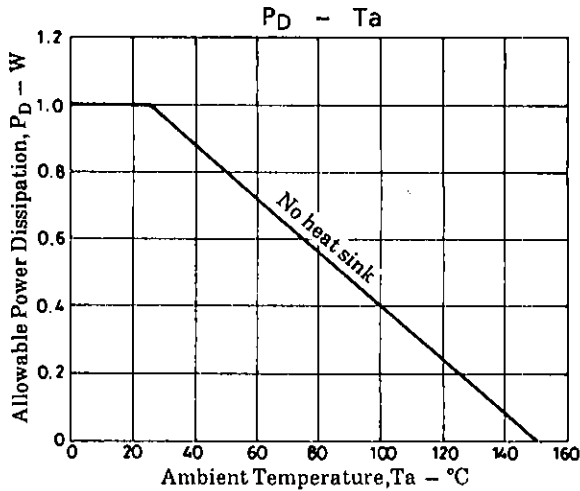
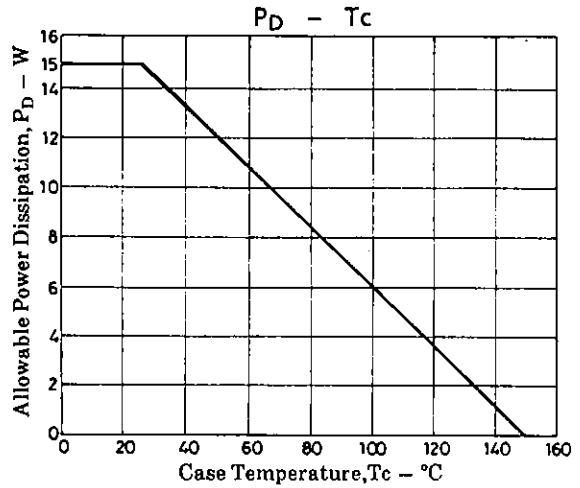
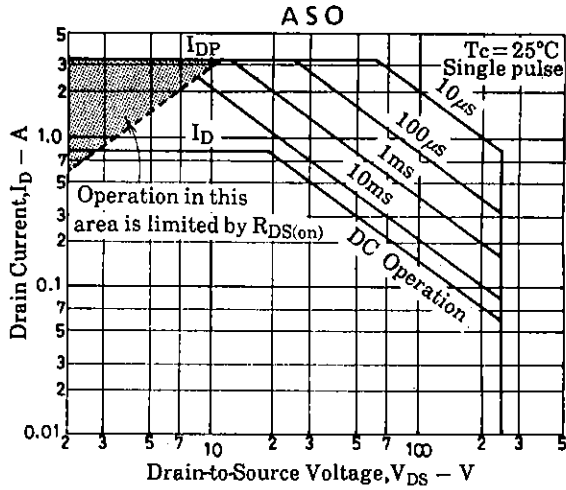
Package Dimensions 2083B



Package Dimensions 2092B







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