



2SK1468

Ultrahigh-Speed Switching Applications

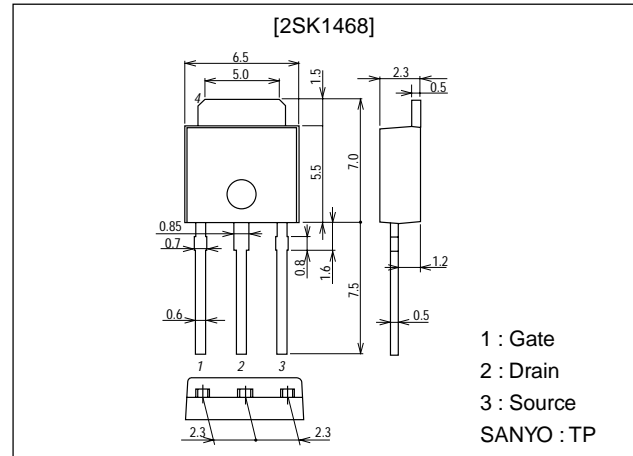
Features

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

Package Dimensions

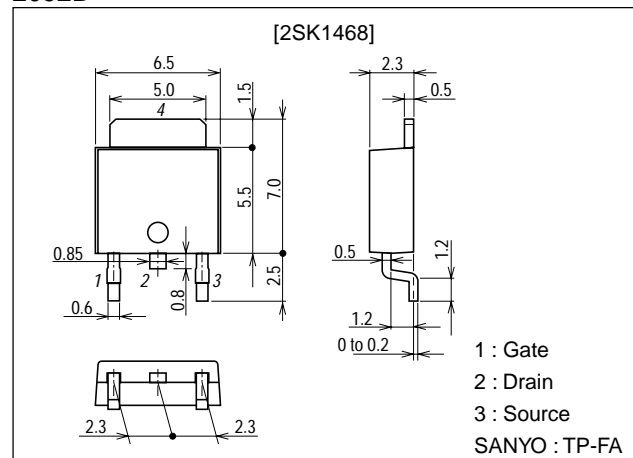
unit:mm

2083B



unit:mm

2092B



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Specifications

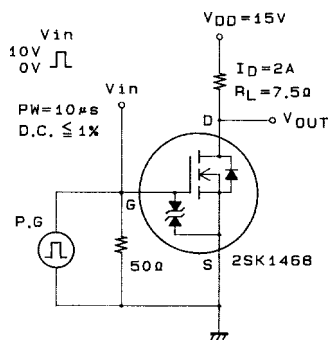
Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		30	V
Gate-to-Source Voltage	V _{GSS}		±15	V
Drain Current (DC)	I _D		4	A
Drain Current (pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	16	A
Allowable Power Dissipation	P _D		1.0	W
		T _c =25°C	20	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

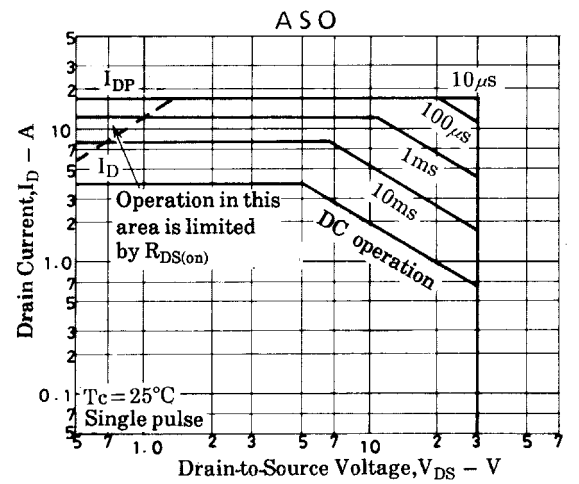
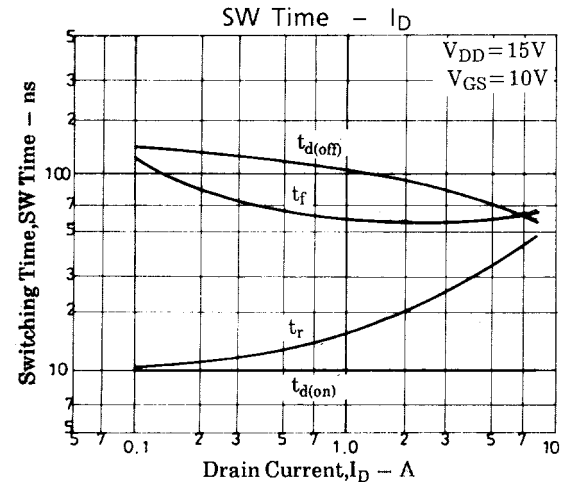
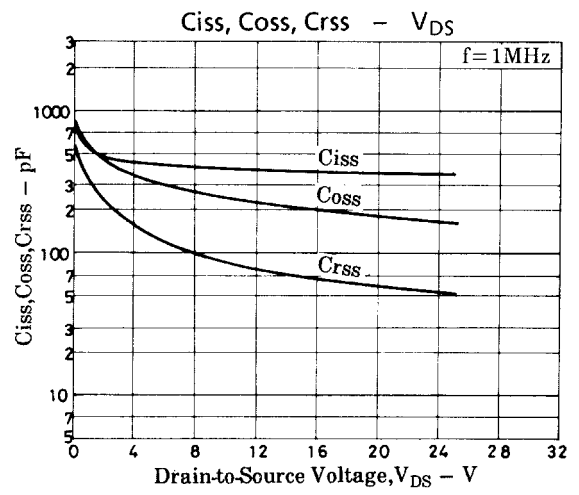
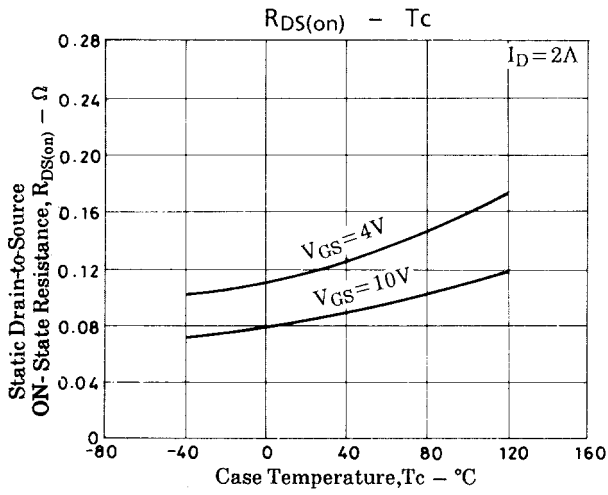
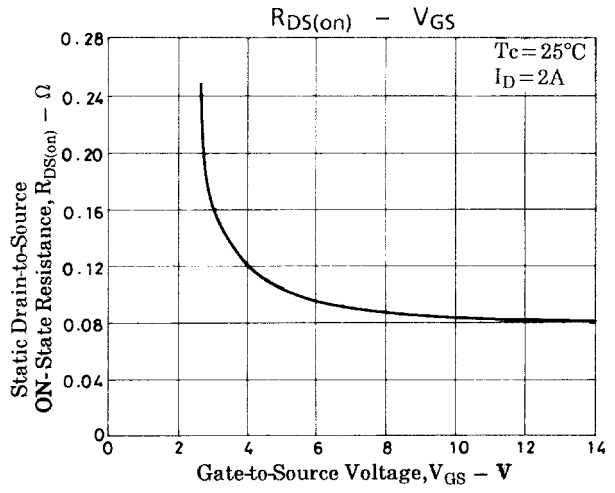
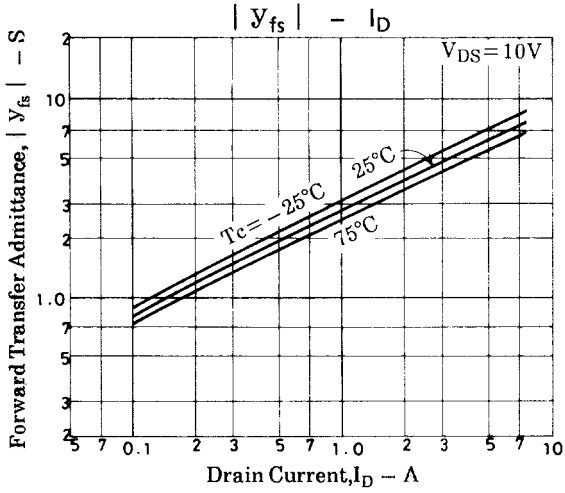
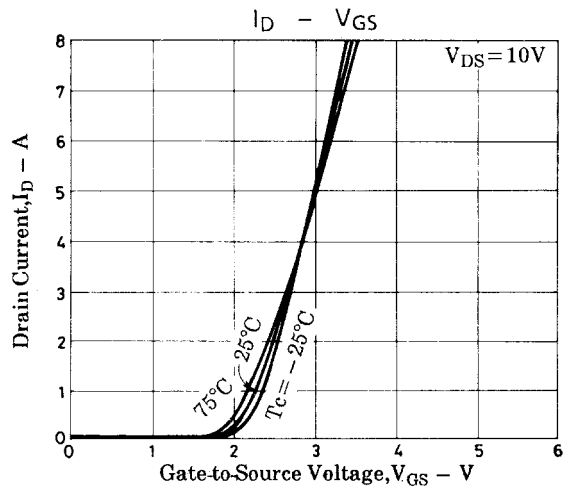
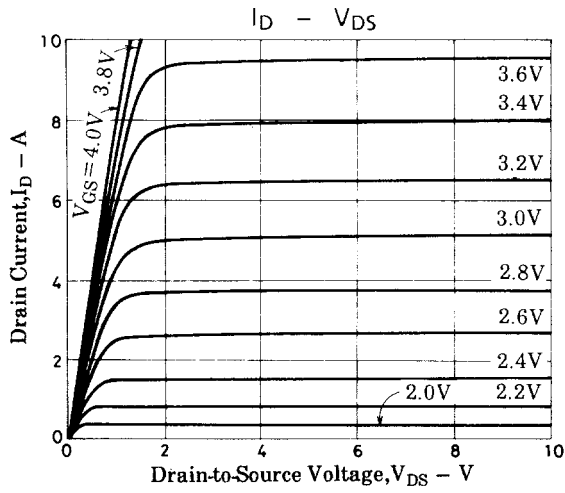
Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V _{(BR)DSS}	I _D =1mA, V _{GS} =0	30			V
Gate-to-Source Breakdown Voltage	V _{(BR)GSS}	I _G =±100μA, V _{DS} =0	±15			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =30V, V _{GS} =0			100	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±12V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =10V, I _D =1mA	1.0		2.0	V
Forward Transfer Admittance	y _{fs}	V _{DS} =10V, I _D =2A	2.5	4		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =2A, V _{GS} =10V		0.085	0.12	Ω
	R _{DS(on)2}	I _D =2A, V _{GS} =4V		0.12	0.17	Ω
Input Capacitance	C _{iss}	V _{DS} =10V, f=1MHz		400		pF
Output Capacitance	C _{oss}	V _{DS} =10V, f=1MHz		250		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =10V, f=1MHz		90		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		20		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		90		ns
Fall Time	t _f	See specified Test Circuit		60		ns
Diode Forward Voltage	V _{SD}	I _S =4A, V _{GS} =0		1.0	1.5	V

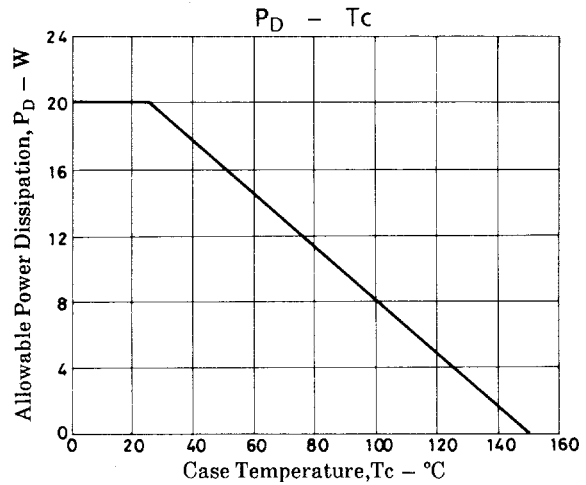
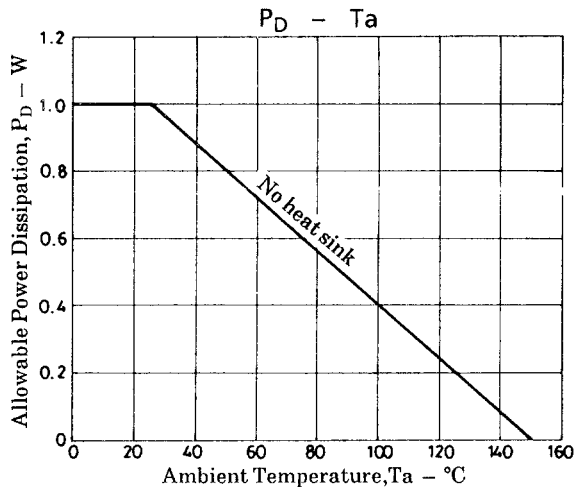
Switching Time Test Circuit



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