



Ultrahigh-Speed Switching Applications

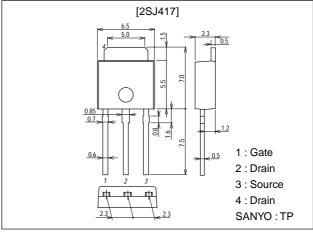
Features

- · Low ON-resistance.
- · Ultrahigh-speed switching.
- · 4V drive.

Package Dimensions

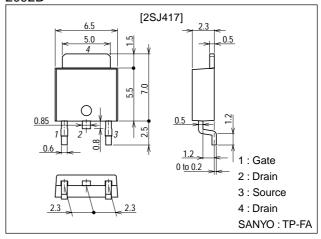
unit:mm

2083B



unit:mm

2092B



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Specifications

Absolute Maximum Ratings at Ta = 25°C

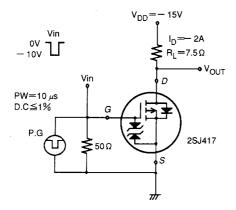
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-30	V
Gate-to-Source Voltage	V _{GSS}		±20	V
Drain Current (DC)	ID		-4	Α
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-16	Α
Allowable Power Dissipation	PD		1	W
	'D	Tc=25°C	20	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

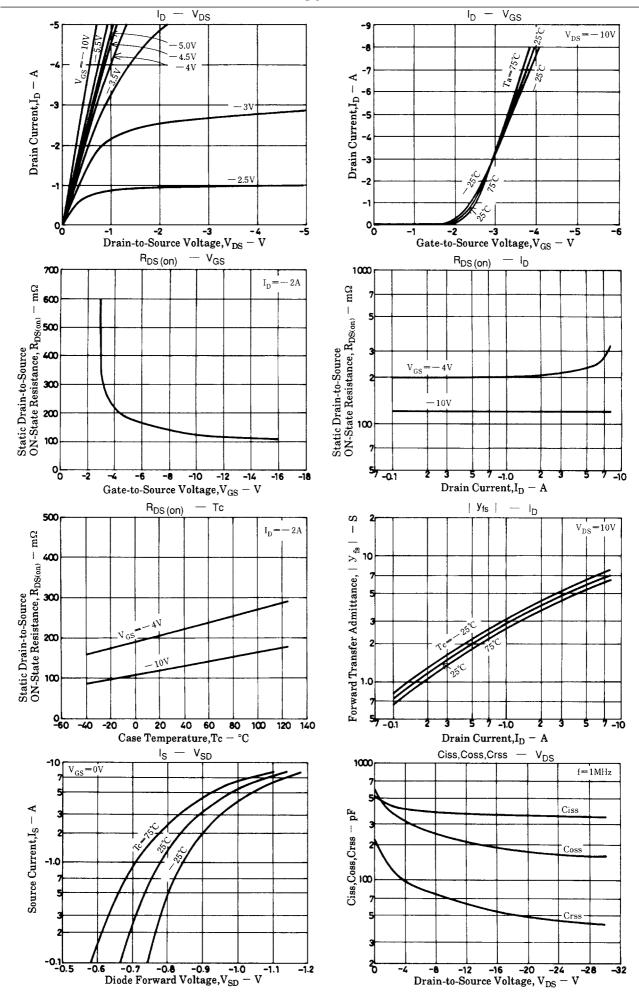
Electrical Characteristics at Ta = 25°C

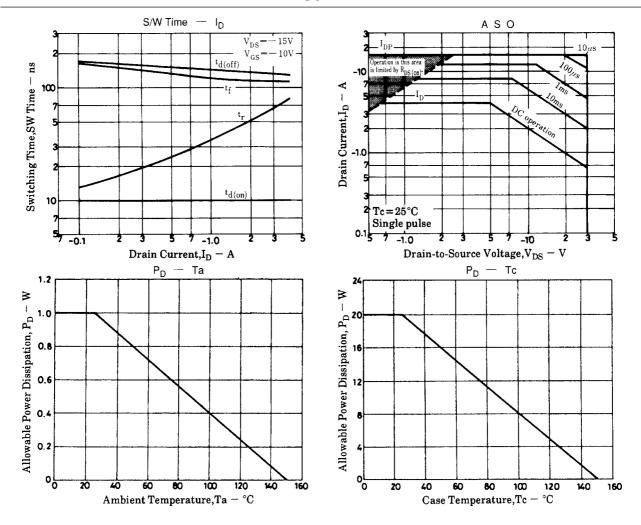
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Onit
Drain-to-Source Breakdown Voltage	V(BR)DSS	$I_D=-1$ mA, $V_{GS}=0$	-30			V
Zero-Gate Voltage Drain Current	IDSS	V _{DS} =-30V, V _{GS} =0			-100	μA
Gate-to-Source Leakage Current	IGSS	$V_{GS}=\pm 16V$, $V_{DS}=0$			±10	μΑ
Cutoff Voltage	VGS(off)	V _{DS} =-10V, I _D =-1mA	-1.0		-2.5	V
Forward Transfer Admittance	yfs	V _{DS} =-10V, I _D =-2A	2	4		S
Static Drain-to-Source ON-State Resistance	R _{DS(on)}	I _D =-2A, V _{GS} =-10V		120	160	mΩ
	R _{DS(on)}	I _D =-2A, V _{GS} =-4V		210	290	mΩ
Input Capacitance	Ciss	V _{DS} =-10V, f=1MHz		370		pF
Output Capacitance	Coss	V _{DS} =-10V, f=1MHz		230		pF
Reverse Transfer Capacitance	Crss	V _{DS} =-10V, f=1MHz		70		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		50		ns
Turn-OFF Delay Time	td(off)	See specified Test Circuit		135		ns
Fall Time	t _f	See specified Test Circuit		125		ns
Diode Forward Voltage	V _{SD}	I _S =-4A, V _{GS} =0		-1.0	-1.2	V

Marking : JJ

Switching Time Test Circuit







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