



Ultrahigh-Speed Switching Applications

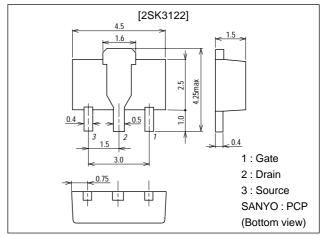
Features

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

Package Dimensions

unit:mm

2062A



Specifications

Absolute Maximum Ratings at $Ta = 25^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		30	V
Gate-to-Source Voltage	VGSS		±24	V
Drain Current (DC)	ΙD		3	Α
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	12	Α
Allowable Power Dissipation	D-	Tc=25°C	3.5	W
	P _D	Mounted on a ceramic board (250mm ² ×0.8mm)	1.5	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	30			V
Zero Gate Voltage Drain Current	IDSS	V _{DS} =30V, V _{GS} =0			10	μΑ
Gate-to-Source Leakage Current	I _{GSS}	$V_{GS}=\pm 16V$, $V_{DS}=0$			±10	μΑ
Cutoff Voltage	VGS(off)	V _{DS} =10V, I _D =1mA	1.0		2.4	V
Forward Transfer Admittance	yfs	V _{DS} =10V, I _D =1.5A	1.7	2.5		S
Static Drain-to-Source On-State Resistance	R _{DS(on)} 1	I _D =1.5A, V _{GS} =10V		115	150	mΩ
	R _{DS(on)} 2	I_D =500mA, V_{GS} =4V		230	320	mΩ

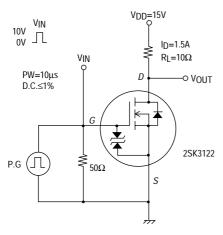
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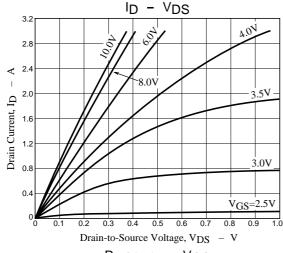
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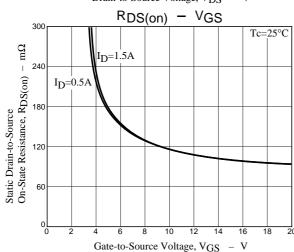
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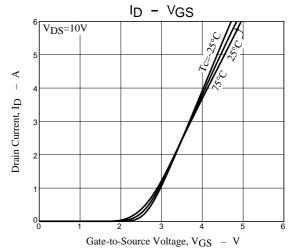
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Input Capacitance	Ciss	V _{DS} =10V, f=1MHz		125		pF
Output Capacitance	Coss	V _{DS} =10V, f=1MHz		80		pF
Reverse Transfer Capacitance	Crss	V _{DS} =10V, f=1MHz		35		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		7		ns
Rise Time	t _r	See specified Test Circuit		15		ns
Turn-OFF Delay Time	td(off)	See specified Test Circuit		17		ns
Fall Time	t _f	See specified Test Circuit		11		ns
Total Gate Charge	Qg	V _{DS} =10V, V _{GS} =10V, I _D =3A		5.6		nC
Gate-to-Source Charge	Qgs			1		nC
Gate-to-Drain "Miller" Charge	Qgd			1.4		nC
Diode Forward Voltage	V _{SD}	I _S =3A, V _{GS} =0		1.0	1.2	V

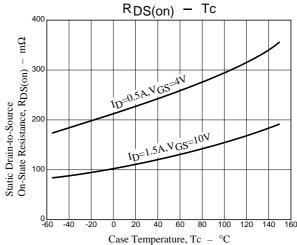
Switching Time Test Circuit

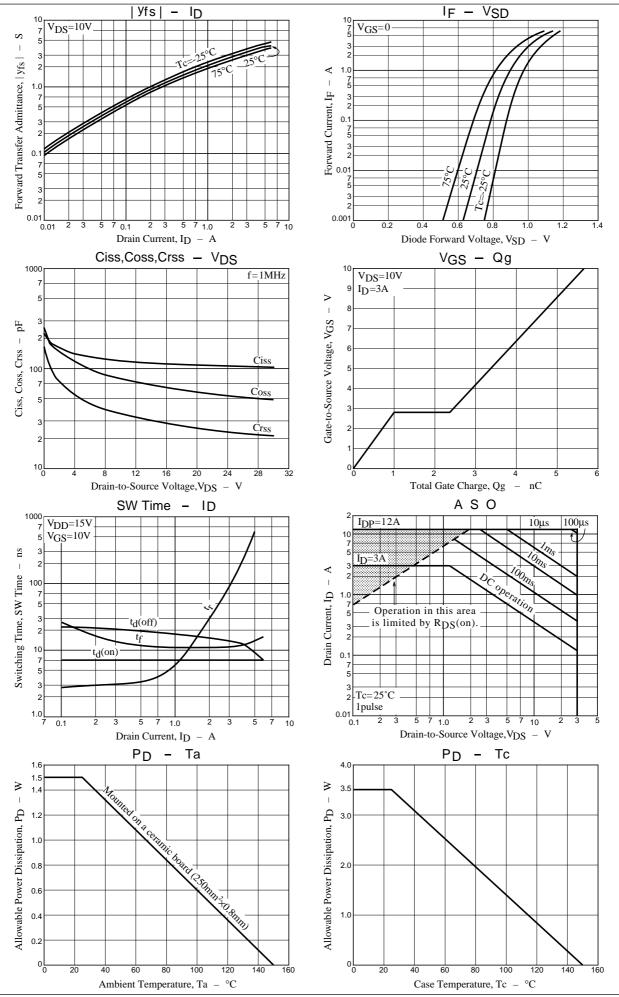












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