



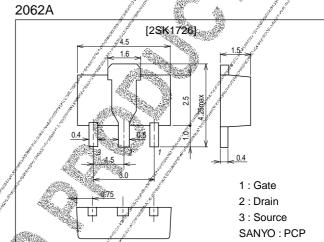
## **Ultrahigh-Speed Switching Applications**

#### **Features**

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

### **Package Dimensions**

unit:mm



## **Specifications**

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

Parameter		Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage		V <sub>D</sub> gs.	4.24.77	60	V
Gate-to-Source Voltage		Vgss		±15	V
Drain Current (DC)		//D		1	Α
Drain Current (Pulse)	A Part	/ I <sub>DP</sub>	PW≤10us, duty cycle≤1%	4	Α
Allowable Power Dissipation	£ 3 Part of the	р. 💮	Tc=25°C	3.5	W
	11	rD 🔻	Mounted on a ceramic board (250mm²×0.8mm)	1.3	W
Channel Temperature	12 3	Tch		150	°C
Storage Temperature	// 4	Tstg		-55 to +150	°C

# Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
raianielei	Symbol	Conditions	min	typ	max	Offic
Drain-to-Source Breakdown Voltage	V(BR)DS\$	JiĎ=1mA, V <sub>GS</sub> =0	60			V
Zero-Gate Voltage Drain Current	I <sub>DS\$</sub>	V <sub>DS</sub> =60V, V <sub>GS</sub> =0			10	μA
Gate-to-Source Leakage Current	lgss/	$V_{GS}=\pm 12V$ , $V_{DS}=0$			±10	μA
Cutoff Voltage	VGS(off)	$V_{DS}=10V$ , $I_{D}=1mA$	1.0		2.0	V
Forward Transfer Admittance	yfs	V <sub>DS</sub> =10V, I <sub>D</sub> =500mA	0.6	1.0		S
Static Drain-to-Source ON-State Resistance	RDS(on)	I <sub>D</sub> =500mA, V <sub>GS</sub> =10V		0.9	1.2	Ω
Static Drain-to-Source On State Resistance	R <sub>DS(on)</sub>	$I_D=500mA$ , $V_{GS}=4V$		1.2	1.6	Ω

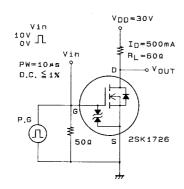
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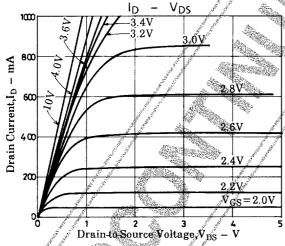
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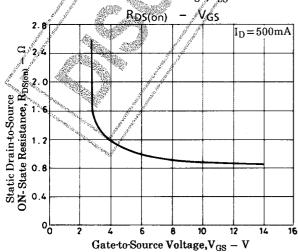
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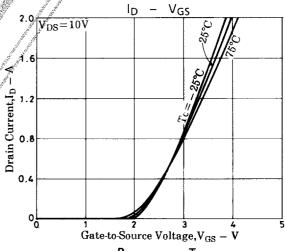
Parameter	Symbol	Conditions		Ratings	ı	Unit
Input Capacitance	Ciss	V <sub>DS</sub> =20V, f=1MHz		45		pF
Output Capacitance	Coss	V <sub>DS</sub> =20V, f=1MHz		22		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =20V, f=1MHz		5		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit		5		ns
Rise Time	t <sub>r</sub>	See specified Test Circuit	À	10		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	See specified Test Circuit	<i>A</i> .	.30	CENTY SEC	ns
Fall Time	t <sub>f</sub>	See specified Test Circuit	gr <sup>ee</sup> de	20 مالي	Sale Marie Marie Control	ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =1A, V <sub>GS</sub> =0	Jeg Harri	1.0	April 10 St.	.V

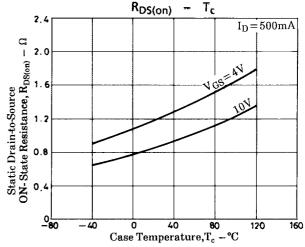
#### **Switching Time Test Circuit**

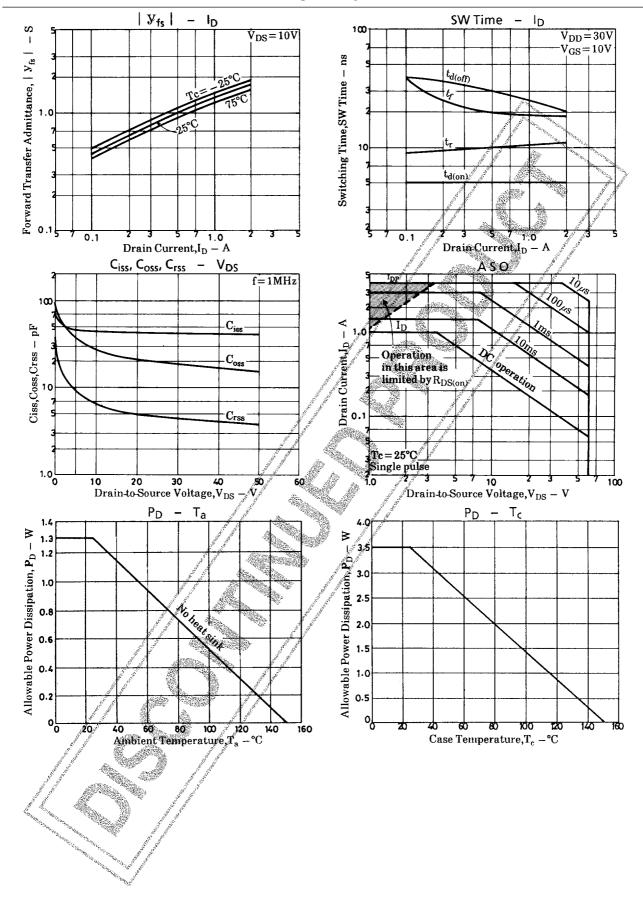


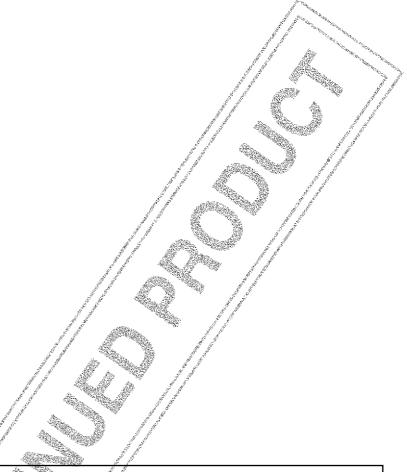












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