2SJ416



# **Ultrahigh-Speed Switching Applications**

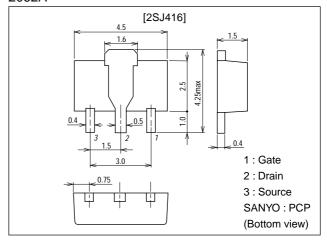
#### **Features**

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

## **Package Dimensions**

unit:mm

2062A



## **Specifications**

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSS</sub>		-30	V
Gate-to-Source Voltage	V <sub>GSS</sub>		±20	V
Drain Current (DC)	ID		-2	Α
Drain Current (Pulse)	I <sub>DP</sub>	PW≤10μs, duty cycle≤1%	-8	Α
Allowable Power Dissipation	PD	Mounted on ceramic board (250mm <sup>2</sup> ×0.8mm)	1.5	W
	Г, р	Tc=25°C	3.5	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

#### Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
	Symbol		min	typ	max	Offic
Input Capacitance	Ciss	V <sub>DS</sub> =-10V, f=1MHz		170	440	pF
Output Capacitance	Coss	V <sub>DS</sub> =-10V, f=1MHz		120	650	pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =-10V, f=1MHz		30		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit		10		ns
Rise Time	t <sub>r</sub>	See specified Test Circuit		20		ns
Turn-OFF Delay Time	td(off)	See specified Test Circuit		110		ns
Fall Time	t <sub>f</sub>	See specified Test Circuit		75		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-2A, V <sub>GS</sub> =0		-1.0	-1.2	V

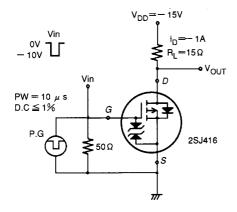
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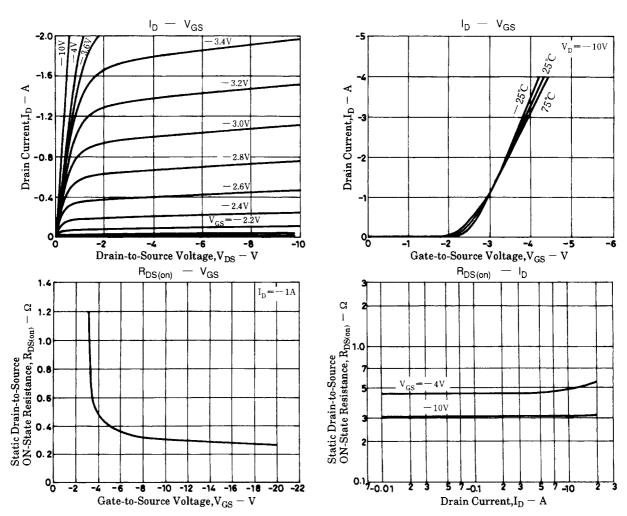
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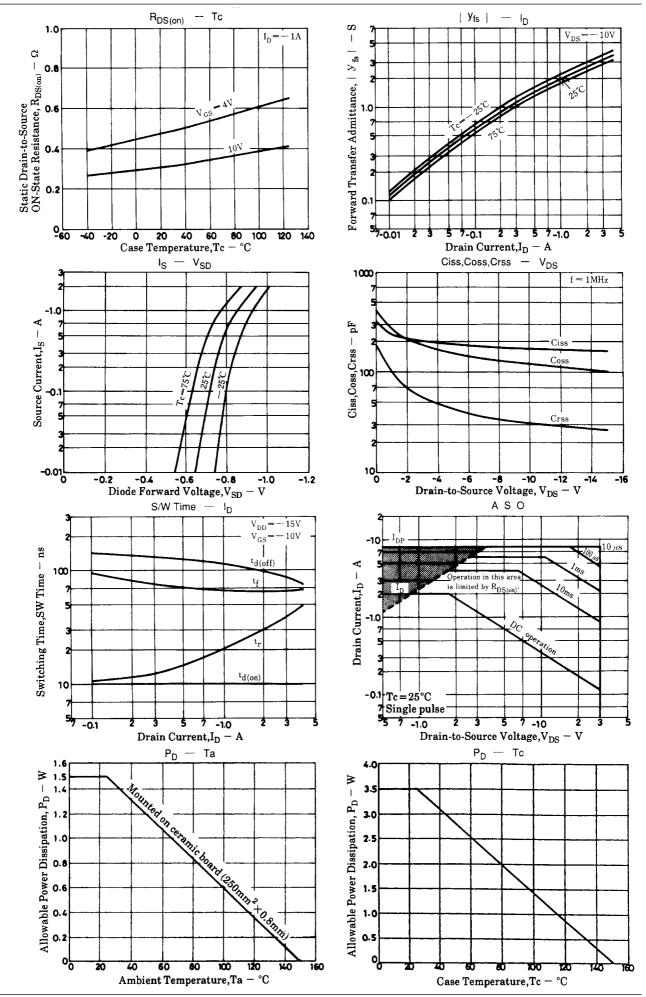
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			min	typ	max	01111
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Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-2A, V <sub>GS</sub> =0		-1.0	-1.2	V

### **Switching Time Test Circuit**







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