Ordering number : ENN6609

P-Channel Silicon MOSFET

2SJ289

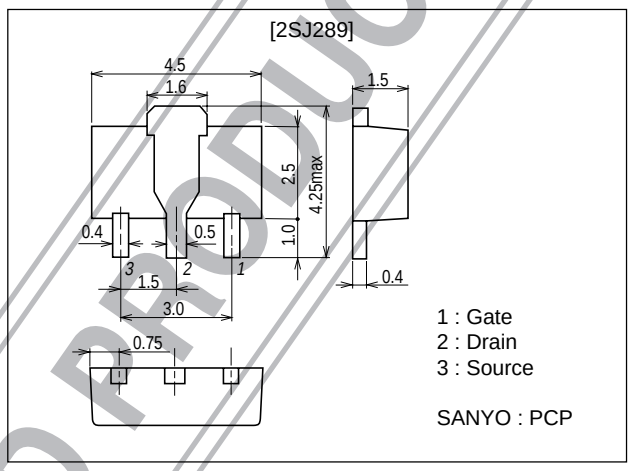
Ultrahigh-Speed Switching Applications

Features

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

Package Dimensions

unit : mm
2062A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		−100	V
Gate-to-Source Voltage	V_{GSS}		±15	V
Drain Current (DC)	I_D		−500	mA
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	−1	A
Allowable Power Dissipation	P_D	Mounted on a ceramic board (250mm²×0.8mm)	1.3	W
		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
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=−1mA, V_{GS}=0	−100			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=−100V, V_{GS}=0			−100	μA
Gate-to-Sourse 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	$\|yfs\|$	V_{DS}=−10V, I_D=−250mA	240	400		mS
Static Drain-to-Sourse On-State Resistance	$R_{DS(on)1}$	I_D=−250mA, V_{GS}=−10V		5	7	Ω
	$R_{DS(on)2}$	I_D=−250mA, V_{GS}=−4V		6.5	9	Ω

Marking : JF

Continued on next page.

DISCONTINUED PRODUCT

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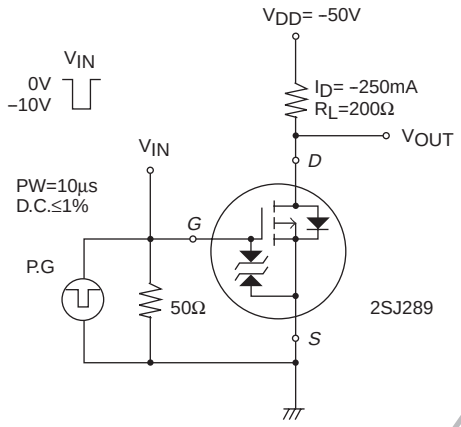
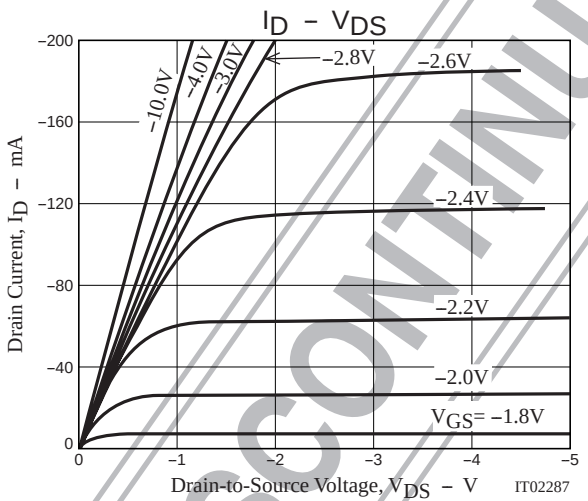
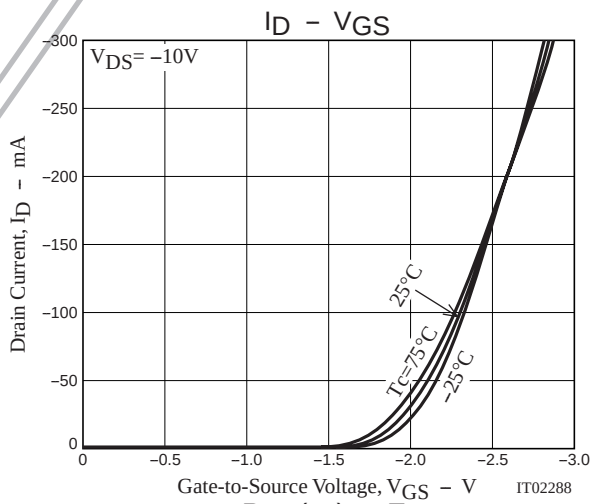
Continued from preceding page.

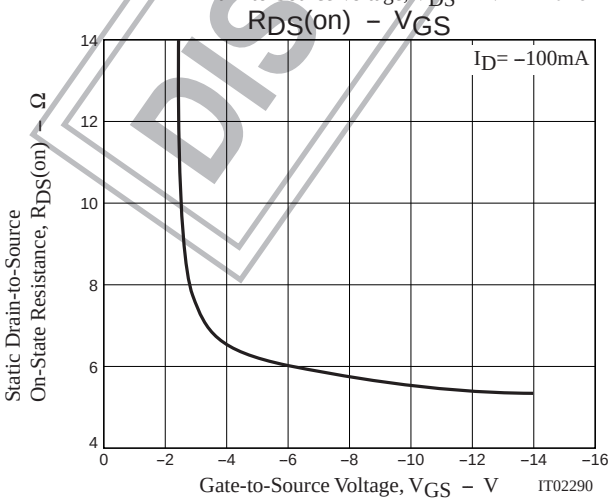
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V_{DS}=–20V, f=1MHz		45		pF
Output Capacitance	Coss	V_{DS}=–20V, f=1MHz		14		pF
Reverse Transfer Capacitance	Crss	V_{DS}=–20V, f=1MHz		3		pF
Turn-ON Delay Time	t_{d}(on)	See specified Test Circuit		7		ns
Rise Time	t_{r}	See specified Test Circuit		10		ns
Turn-OFF Delay Time	t_{d}(off)	See specified Test Circuit		35		ns
Fall Time	t_{f}	See specified Test Circuit		20		ns
Diode Forward Voltage	V_{SD}	I_{S}=–500mA, V_{GS}=0		–1		V

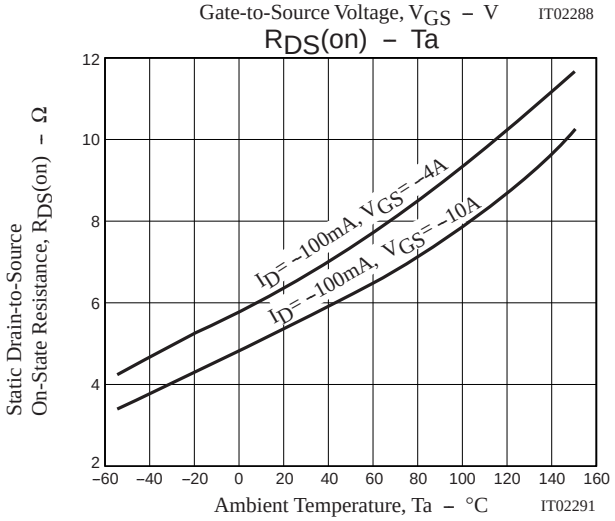
Switching Time Test Circuit











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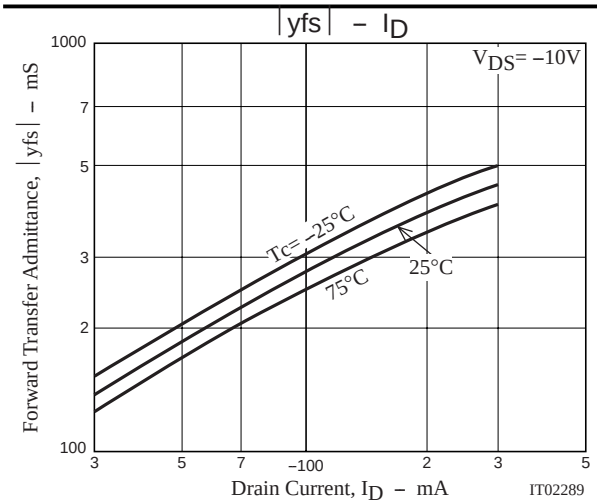

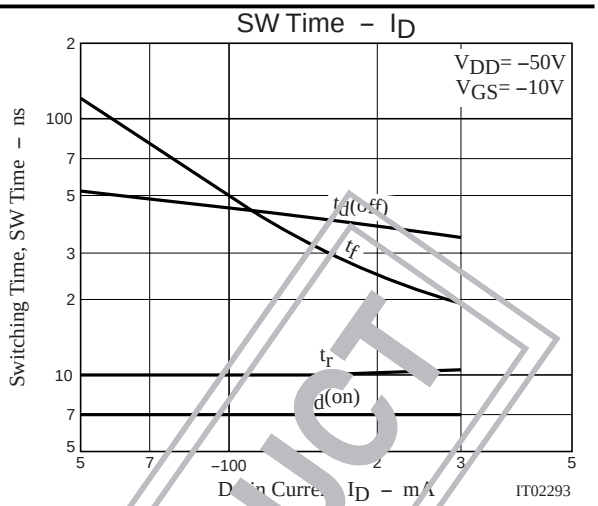

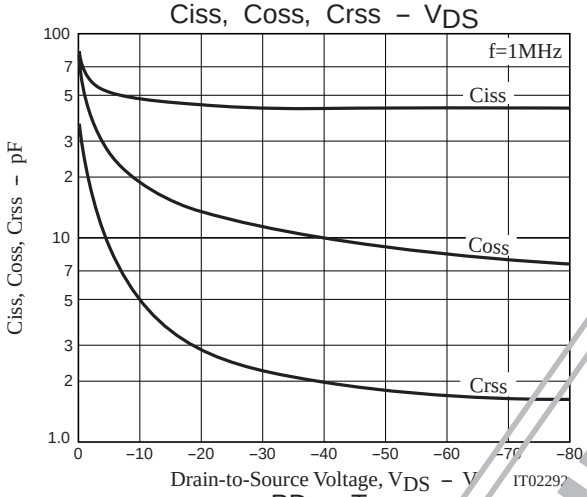

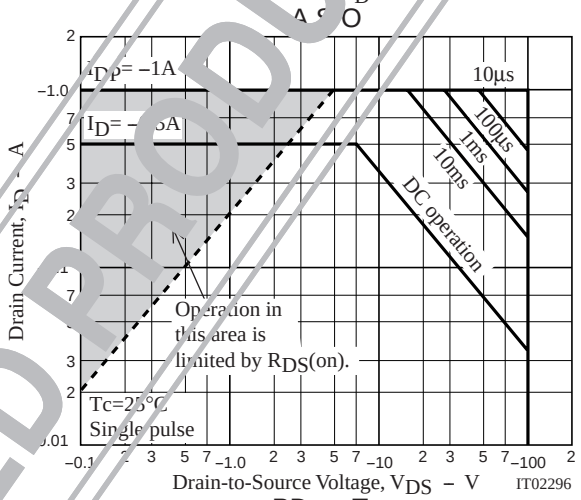

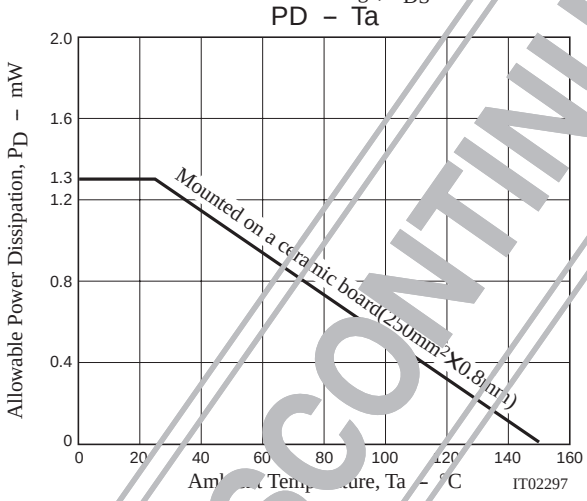

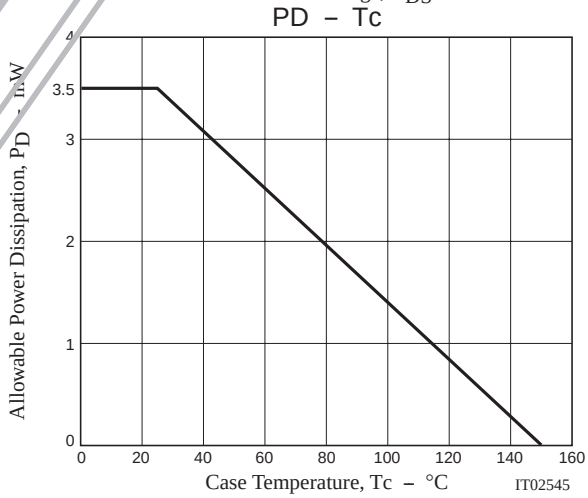

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