

Ordering number : ENN7271

P-Channel Silicon MOSFET

**2SJ628**



**Ultrahigh-Speed Switching Applications**

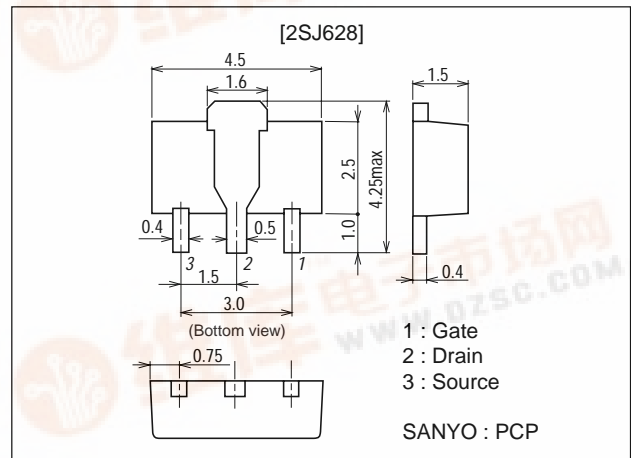
**Features**

- Low ON-resistance.
- Ultrahigh-speed switching.
- 1.8V 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>		-12	V
Gate-to-Source Voltage	V <sub>GSS</sub>		±8	V
Drain Current (DC)	I <sub>D</sub>		-2.5	A
Drain Current (Pulse)	I <sub>DP</sub>	PW≤10μs, duty cycle≤1%	-10	A
Allowable Power Dissipation	P <sub>D</sub>	Mounted on a ceramic board (250mm <sup>2</sup> X0.8mm)	1.0	W
		Tc=25°C	3.5	W
Channel Temperature	T <sub>ch</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

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

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> =-1mA, V <sub>GS</sub> =0	-12			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =-12V, V <sub>GS</sub> =0			-10	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±6.4V, V <sub>DS</sub> =0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =-6V, I <sub>D</sub> =-1mA	-0.3		-1.0	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =-6V, I <sub>D</sub> =-1.3A	2.1	3.0		S
Static Drain-to-Source On-State Resistance	R <sub>DS(on)1</sub>	I <sub>D</sub> =-1.3A, V <sub>GS</sub> =-4.5V		120	155	mΩ
	R <sub>DS(on)2</sub>	I <sub>D</sub> =-0.7A, V <sub>GS</sub> =-2.5V		170	240	mΩ
	R <sub>DS(on)3</sub>	I <sub>D</sub> =-0.2A, V <sub>GS</sub> =-1.8V		230	360	mΩ

Marking : MB

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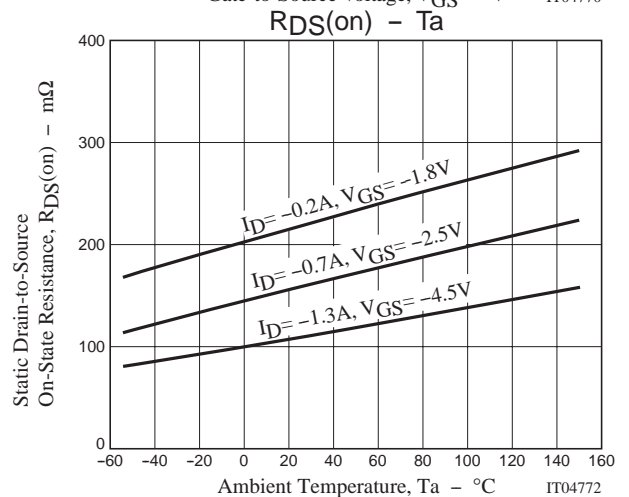
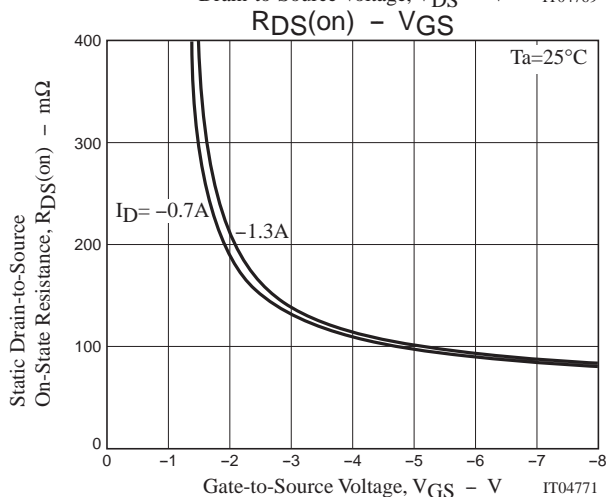
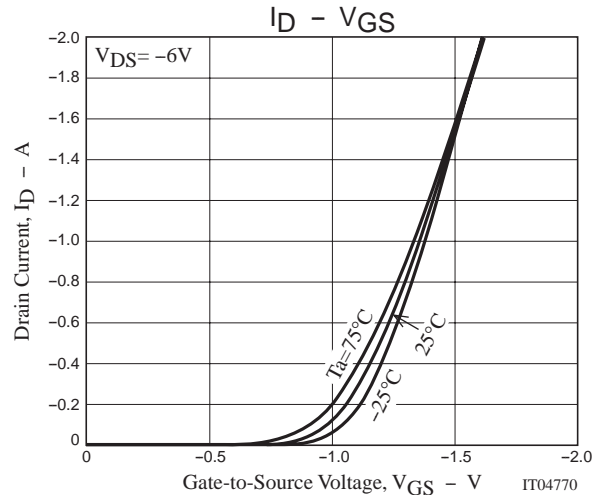
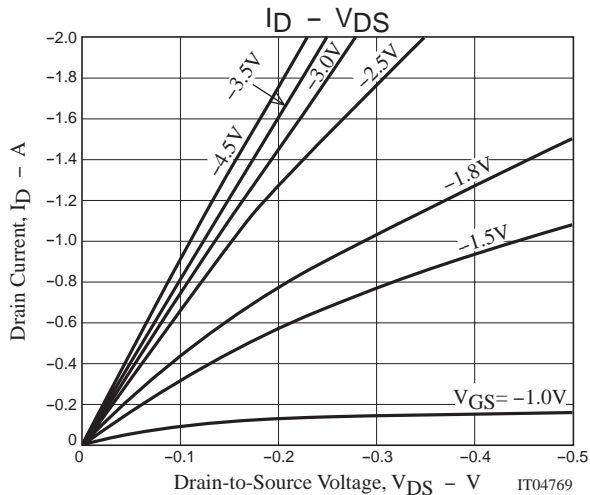
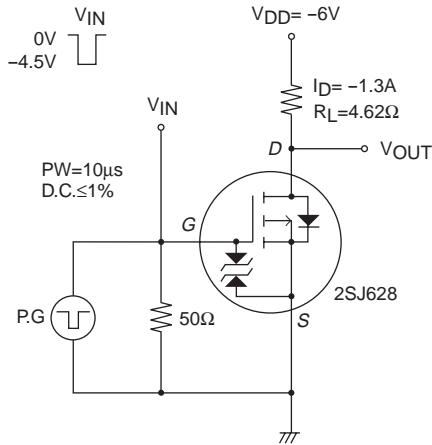


# 2SJ628

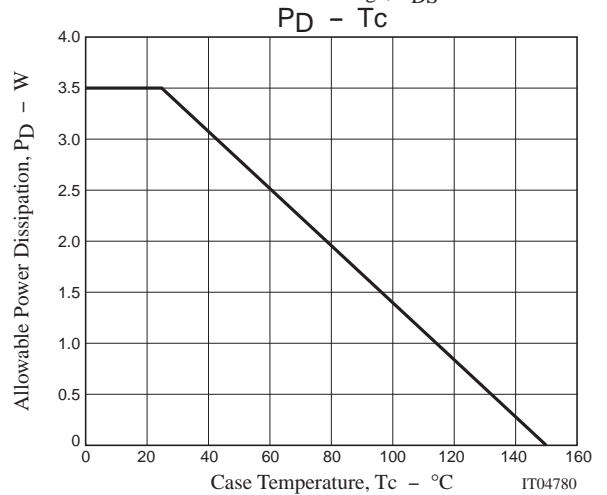
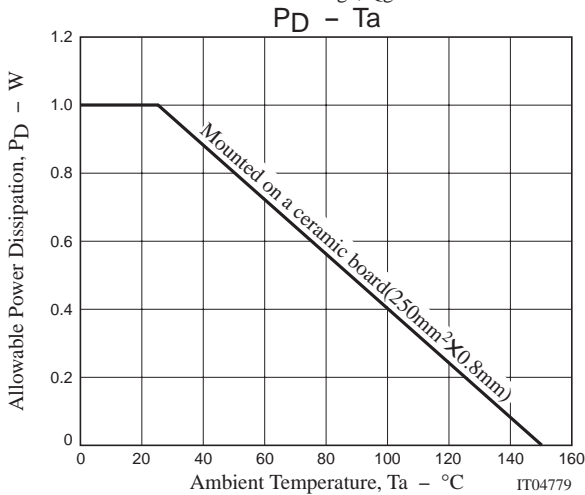
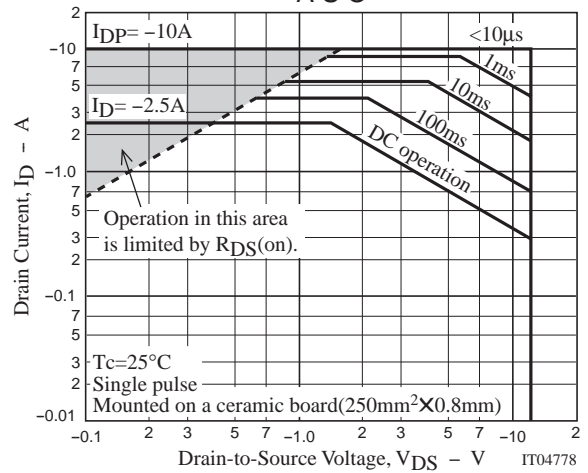
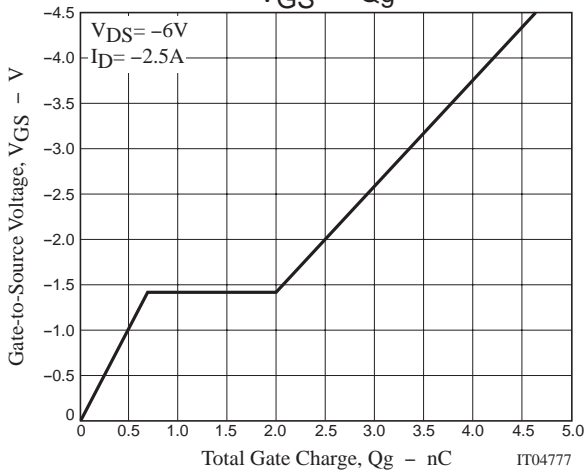
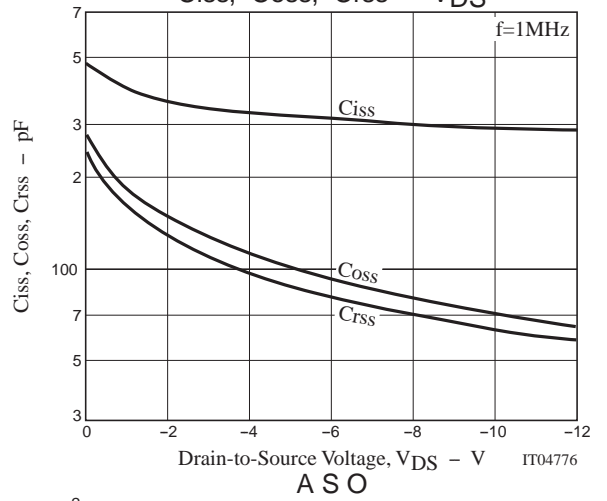
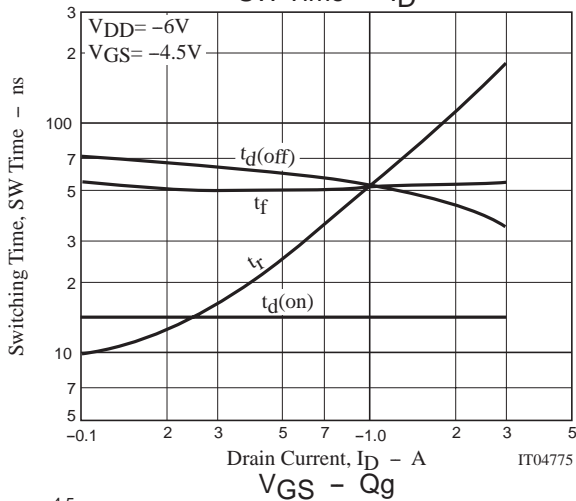
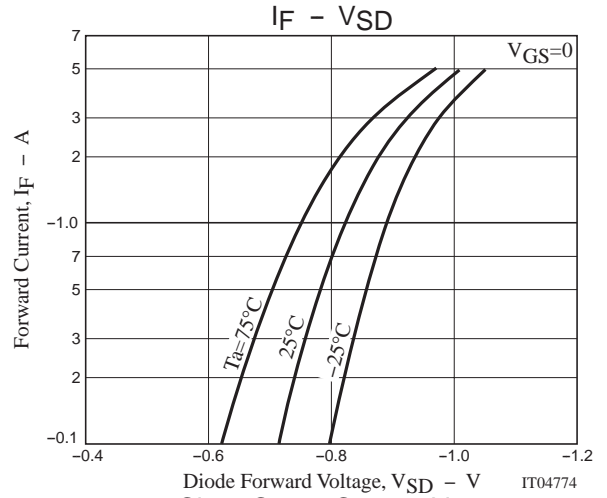
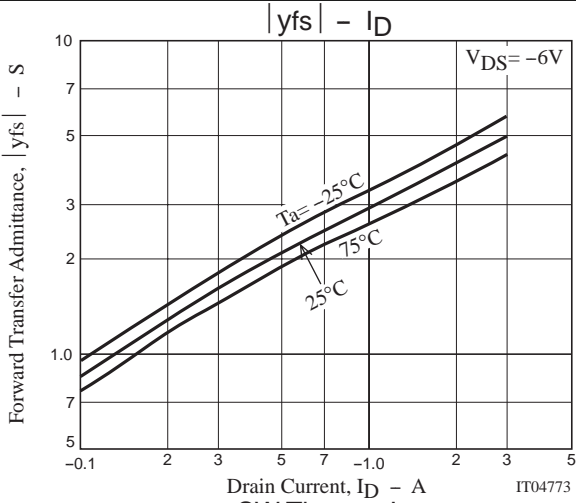
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	V <sub>DS</sub> =-6V, f=1MHz		310		pF
Output Capacitance	Coss	V <sub>DS</sub> =-6V, f=1MHz		90		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =-6V, f=1MHz		80		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		15		ns
Rise Time	t <sub>r</sub>	See specified Test Circuit.		70		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	See specified Test Circuit.		50		ns
Fall Time	t <sub>f</sub>	See specified Test Circuit.		52		ns
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> =-6V, V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-2.5A		4.6		nC
Gate-to-Source Charge	Q <sub>gs</sub>	V <sub>DS</sub> =-6V, V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-2.5A		0.7		nC
Gate-to-Drain "Miller" Charge	Q <sub>gd</sub>	V <sub>DS</sub> =-6V, V <sub>GS</sub> =-4.5V, I <sub>D</sub> =-2.5A		1.3		nC
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> =-2.5A, V <sub>GS</sub> =0	-0.93		-1.5	V

## Switching Time Test Circuit



# 2SJ628



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