

To our customers,

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## Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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EOL announced product

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## 2SK1579

Silicon N Channel MOS FET

REJ03G0956-0200  
(Previous: ADE-208-1296)  
Rev.2.00  
Sep 07, 2005

### Application

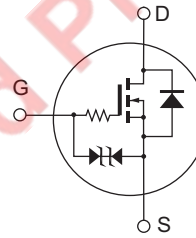
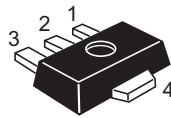
High speed power switching

### Features

- Low on-resistance
- High speed switching
- Suitable for low voltage operation

### Outline

RENESAS Package code: PLZZ0004CA-A  
(Package name: UPAK<sup>®</sup>)



1. Gate
2. Drain
3. Source
4. Drain

Note: Marking is "DY".

\*UPAK is a trademark of Renesas Technology Corp.

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V <sub>DSS</sub>	12	V
Gate to source voltage	V <sub>GSS</sub>	±7	V
Drain current	I <sub>D</sub>	2	A
Drain peak current	I <sub>D(pulse)</sub> <sup>*1</sup>	4	A
Body to drain diode reverse drain current	I <sub>DR</sub>	2	A
Channel power dissipation	P <sub>ch</sub> <sup>*2</sup>	1	W
Channel temperature	T <sub>ch</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

Notes: 1. PW ≤ 100 μs, duty cycle ≤ 10%  
 2. Value on the alumina ceramic board (12.5 × 20 × 0.7 mm)

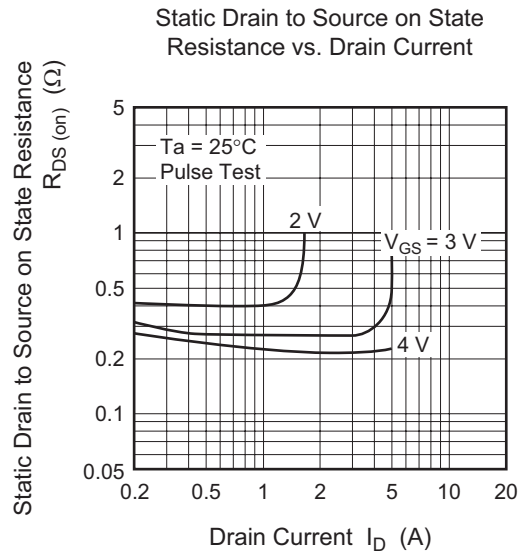
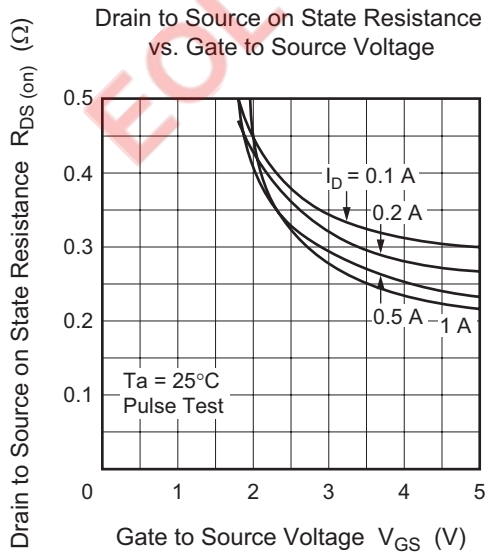
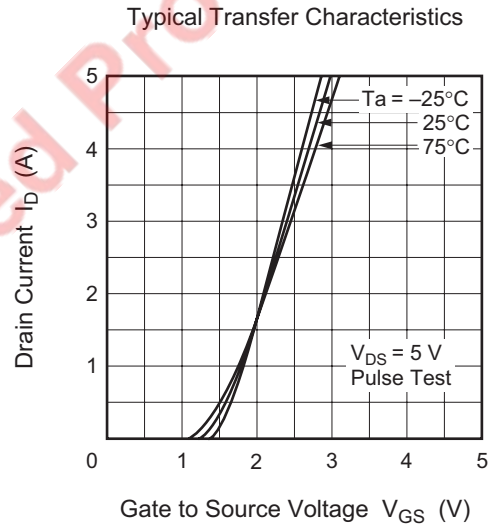
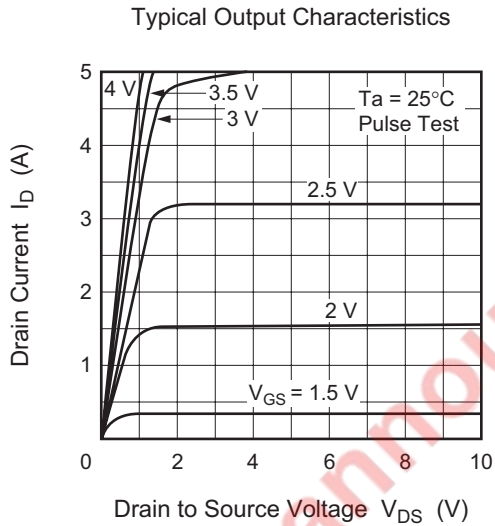
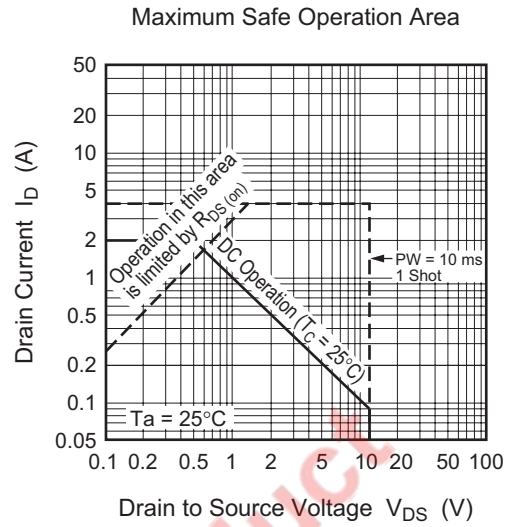
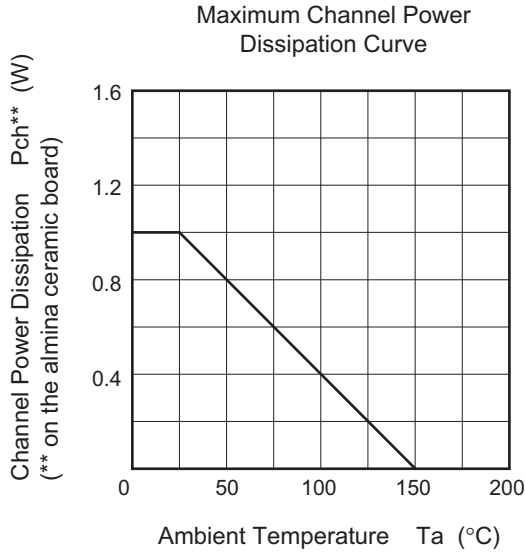
## Electrical Characteristics

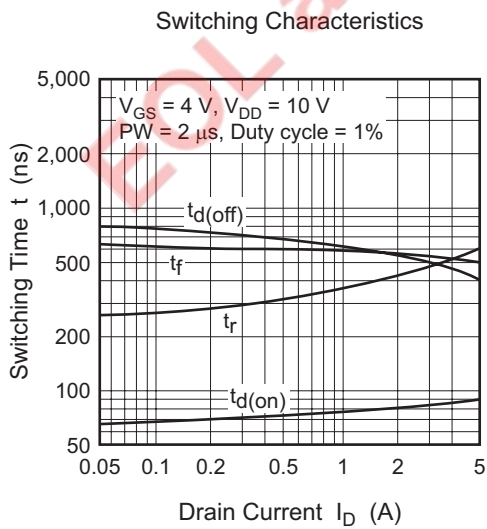
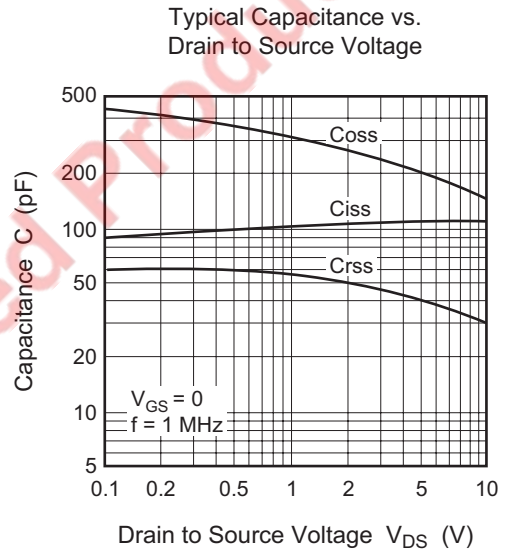
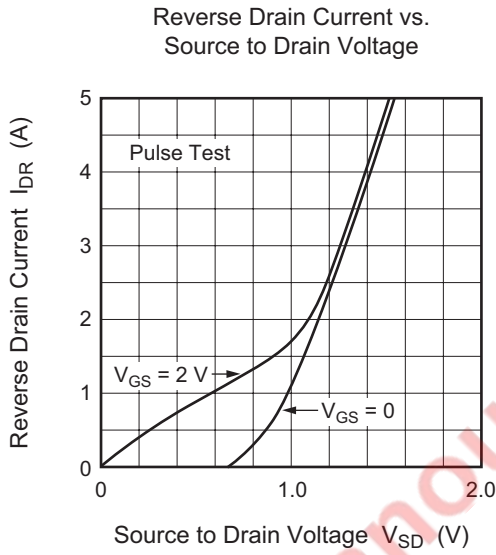
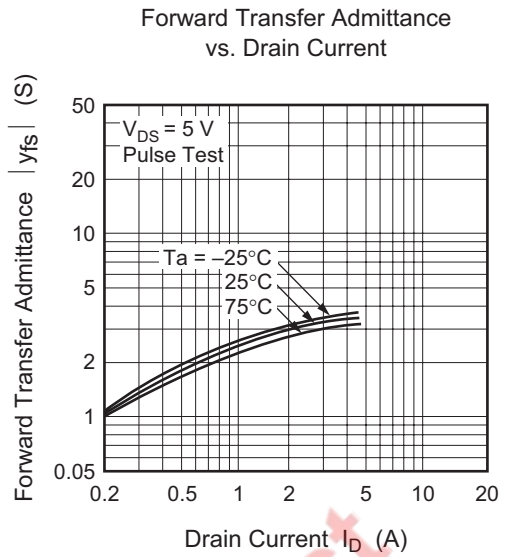
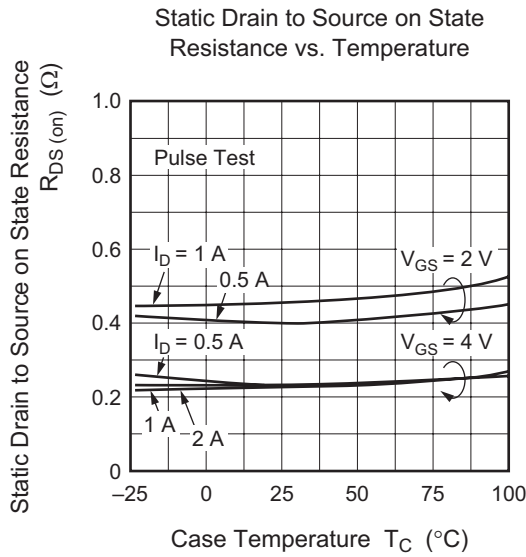
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Drain to source cutoff current	I <sub>DSS</sub>	—	—	1	μA	V <sub>DS</sub> = 8 V, V <sub>GS</sub> = 0
Gate to source cutoff current	I <sub>GSS</sub>	—	—	±5	μA	V <sub>GS</sub> = ±6.5 V, V <sub>DS</sub> = 0
Gate to source cutoff voltage	V <sub>GS(off)</sub>	0.4	—	1.4	V	V <sub>DS</sub> = 5 V, I <sub>D</sub> = 100 μA
Drain to source on resistance (1)	R <sub>DS(on)1</sub>	—	0.36	0.7	Ω	V <sub>GS</sub> = 2.2 V, I <sub>D</sub> = 0.5 A <sup>*3</sup>
Drain to source on resistance (2)	R <sub>DS(on)2</sub>	—	0.25	0.35	Ω	V <sub>GS</sub> = 4 V, I <sub>D</sub> = 1 A <sup>*3</sup>
DC forward transfer admittance	y <sub>fs</sub>	1	2.5	—	S	V <sub>DS</sub> = 5 V, I <sub>D</sub> = 1 A, ΔV <sub>GS</sub> = 0.1 V <sup>*3</sup>
Input capacitance	C <sub>iss</sub>	—	110	—	pF	V <sub>DS</sub> = 5 V, V <sub>GS</sub> = 0, f = 1 MHz
Reverse transfer capacitance	C <sub>rss</sub>	—	30	—	pF	
Output capacitance	C <sub>oss</sub>	—	150	—	pF	
Turn-on time	t <sub>(on)</sub>	—	500	—	ns	I <sub>D</sub> = 0.2 A, V <sub>GS</sub> = 0, V <sub>in</sub> = 4 V, R <sub>L</sub> = 51 Ω <sup>*3</sup>
Turn-off time	t <sub>(off)</sub>	—	1500	—	ns	

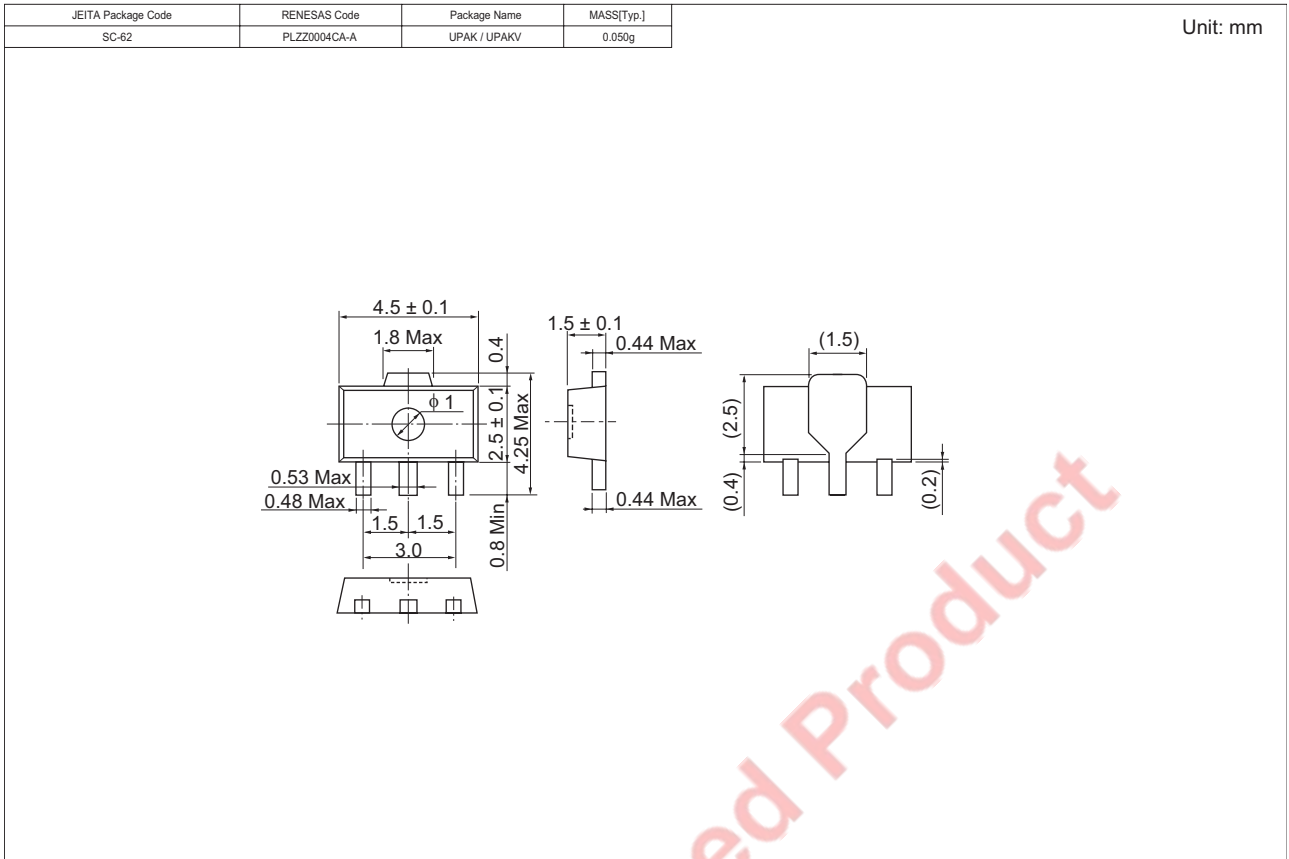
Note: 3. Pulse Test

Main Characteristics





### Package Dimensions



### Ordering Information

Part Name	Quantity	Shipping Container
2SK1579DY	3000 pcs	Taping, $\phi 178$ mm Reel

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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