

## 2SJ317

### Silicon P Channel MOS FET

REJ03G0857-0200  
(Previous: ADE-208-1191)  
Rev.2.00  
Sep 07, 2005

#### Description

High speed power switching

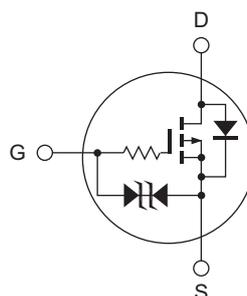
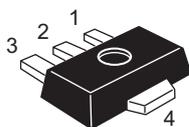
Low voltage operation

#### Features

- Very low on-resistance
- High speed switching
- Suitable for camera or VTR motor drive circuit, power switch, solenoid drive and etc.

#### Outline

RENESAS Package code: PLZZ0004CA-A  
(Package name: UPAK®)



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

Note: Marking is "NY".

\*UPAK is a trademark of Renesas Technology Corp.

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	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>Note 1</sup>	±4	A
Body to drain diode reverse drain current	I <sub>DR</sub>	2	A
Channel dissipation	P <sub>ch</sub> <sup>Note 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)

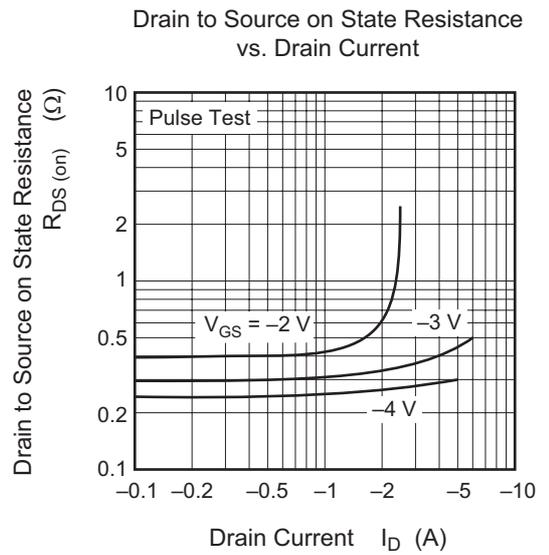
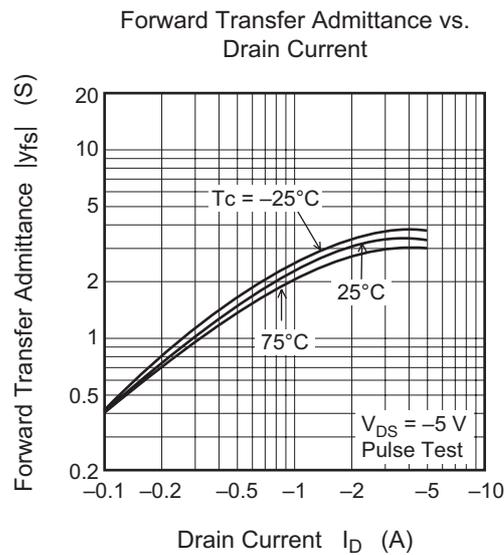
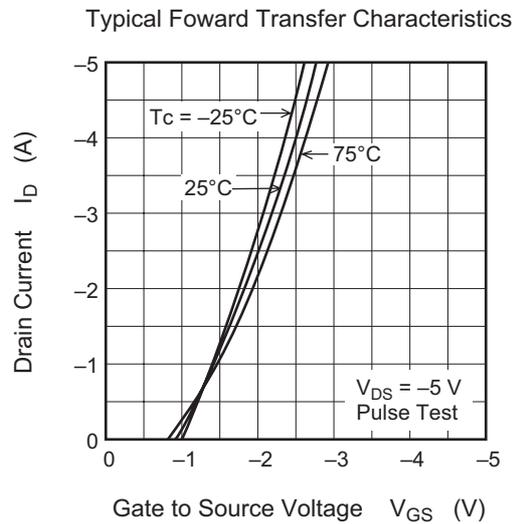
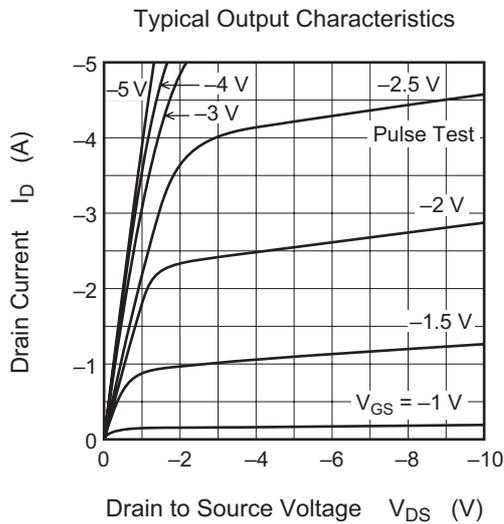
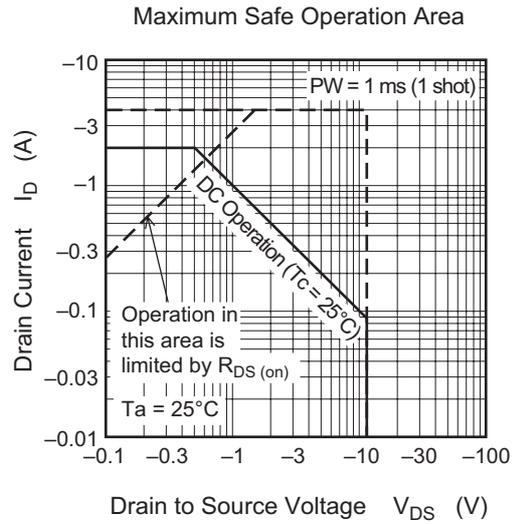
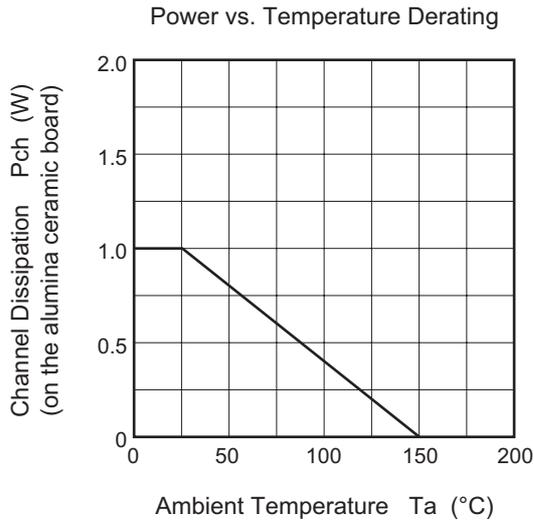
## Electrical Characteristics

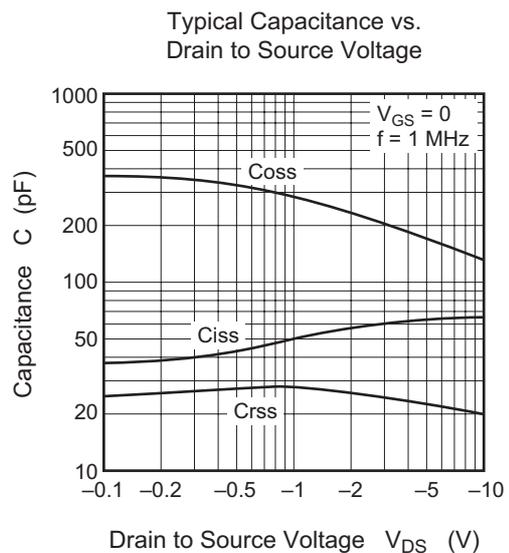
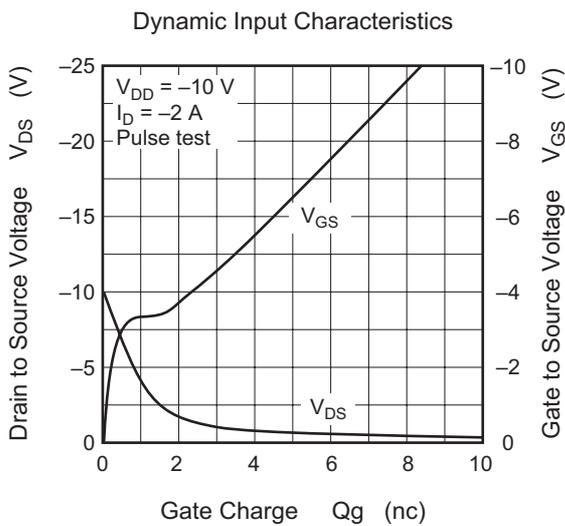
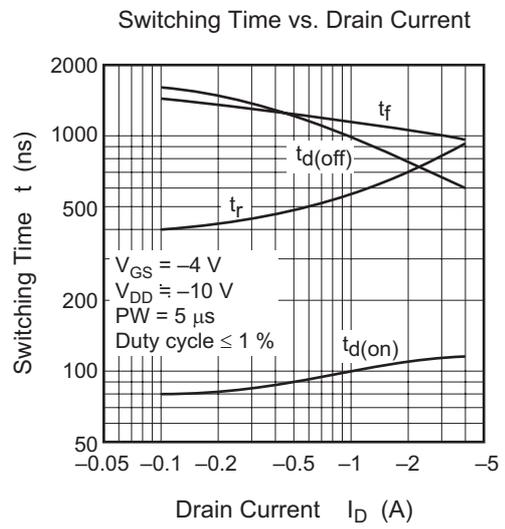
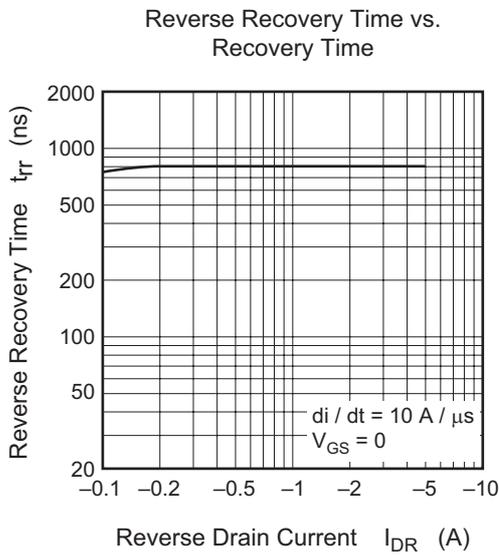
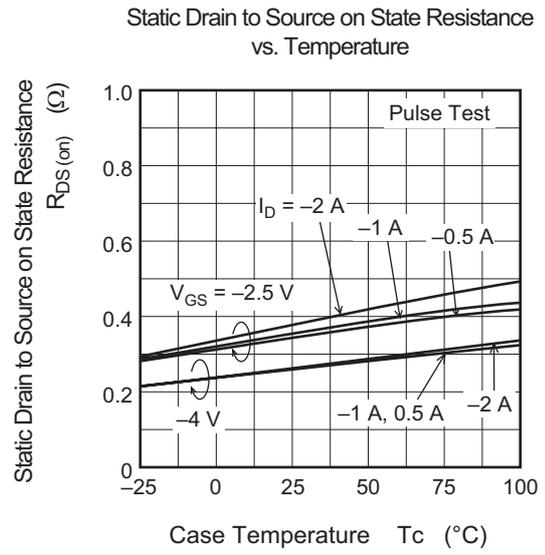
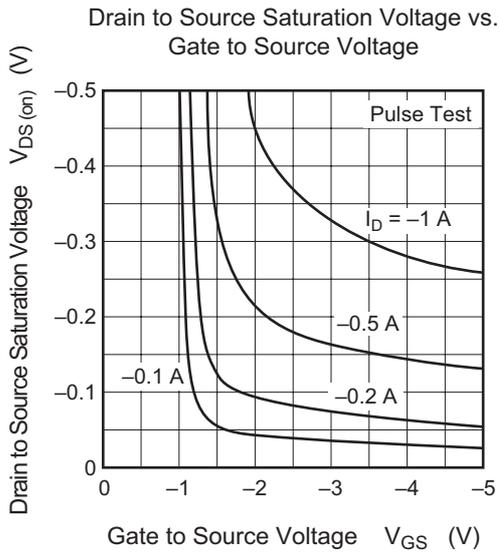
(Ta = 25°C)

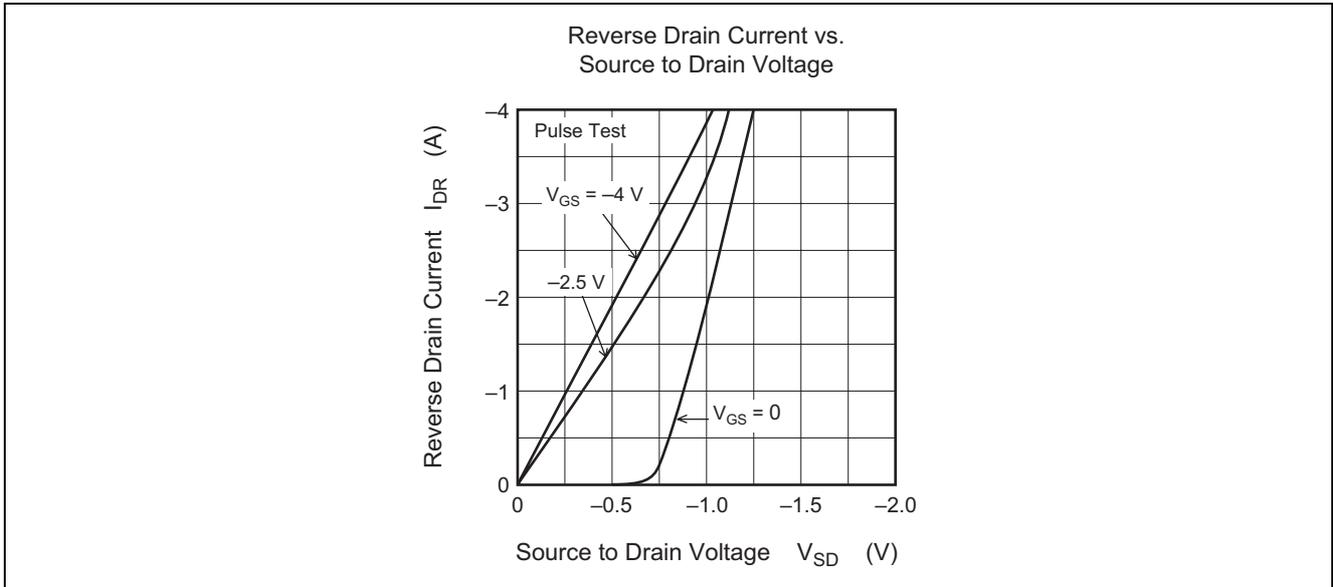
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V <sub>(BR) DSS</sub>	-12	—	—	V	I <sub>D</sub> = -1 mA, V <sub>GS</sub> = 0
Gate to source breakdown voltage	V <sub>(BR) GSS</sub>	±7	—	—	V	I <sub>G</sub> = ±10 μA, V <sub>DS</sub> = 0
Gate to source leak current	I <sub>GSS</sub>	—	—	±5	μA	V <sub>GS</sub> = ±6.5 V, V <sub>DS</sub> = 0
Zero gate voltage drain current	I <sub>DSS</sub>	—	—	-1	μA	V <sub>DS</sub> = -8 V, V <sub>GS</sub> = 0
Gate to source cutoff voltage	V <sub>GS (off)</sub>	-0.4	—	-1.4	V	I <sub>D</sub> = -100 μA, V <sub>DS</sub> = -5 V
Static drain to source on state resistance	R <sub>DS (on) 1</sub>	—	0.4	0.7	Ω	I <sub>D</sub> = -0.5 A, V <sub>GS</sub> = -2.2 V <sup>Note 3</sup>
	R <sub>DS (on) 2</sub>	—	0.28	0.35	Ω	I <sub>D</sub> = -1 A, V <sub>GS</sub> = -4 V <sup>Note 3</sup>
Forward transfer admittance	y <sub>fs</sub>	1.0	2.3	—	S	I <sub>D</sub> = -1 A, V <sub>DS</sub> = -5 V <sup>Note 3</sup>
Input capacitance	C <sub>iss</sub>	—	63	—	pF	V <sub>DS</sub> = -5 V
Output capacitance	C <sub>oss</sub>	—	180	—	pF	V <sub>GS</sub> = 0
Reverse transfer capacitance	C <sub>rss</sub>	—	23	—	pF	f = 1 MHz
Turn-on delay time	t <sub>d (on)</sub>	—	500	—	ns	I <sub>D</sub> = -0.2 A
Turn-off delay time	t <sub>d (off)</sub>	—	2860	—	ns	V <sub>in</sub> = -4 V, R <sub>L</sub> = 51 Ω

Note: 3. Pulse test

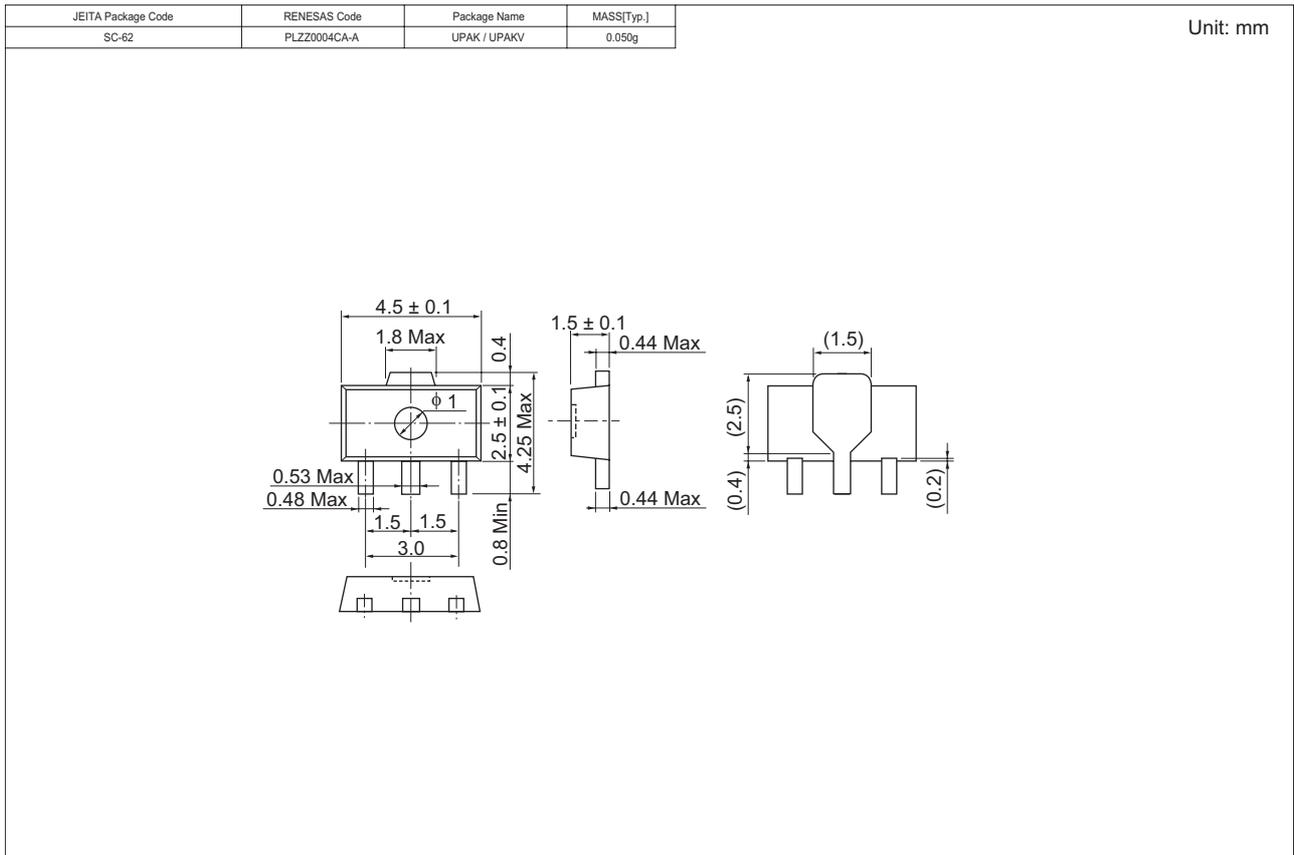
Main Characteristics







## Package Dimensions



## Ordering Information

Part Name	Quantity	Shipping Container
2SJ317NYTL-E	1000 pcs	Taping
2SJ317NYTR-E	1000 pcs	Taping

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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