

2SJ317

Silicon P Channel MOS FET

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

Description

High speed power switching

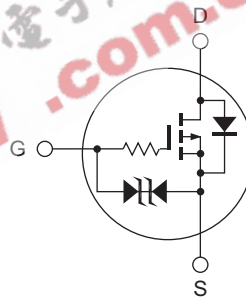
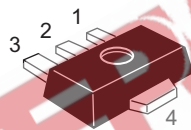
Low voltage operation

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 _{DSS} | -12 | V |
| Gate to source voltage | V _{GSS} | -7 | V |
| Drain current | I _D | ±2 | A |
| Drain peak current | I _{D (pulse)} ^{Note 1} | ±4 | A |
| Body to drain diode reverse drain current | I _{DR} | 2 | A |
| Channel dissipation | P _{ch} ^{Note 2} | 1 | W |
| Channel temperature | T _{ch} | 150 | °C |
| Storage temperature | T _{stg} | -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)

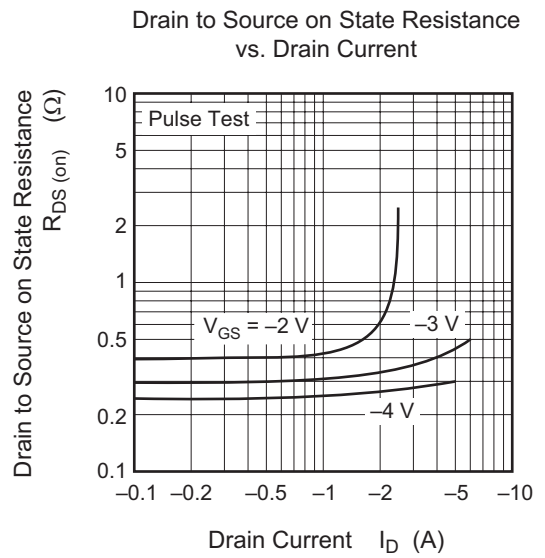
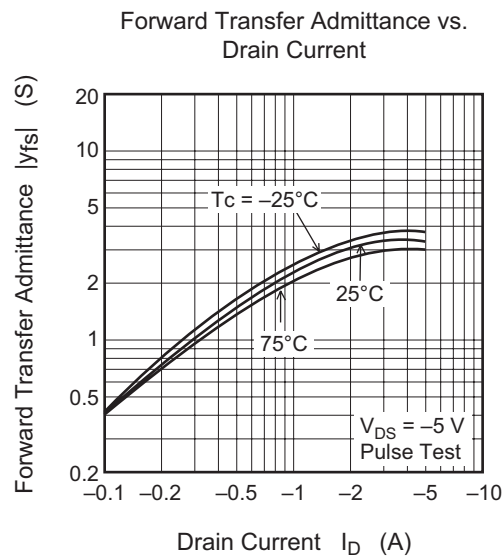
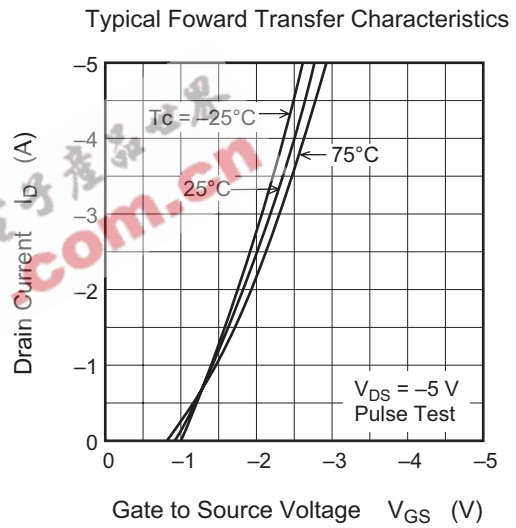
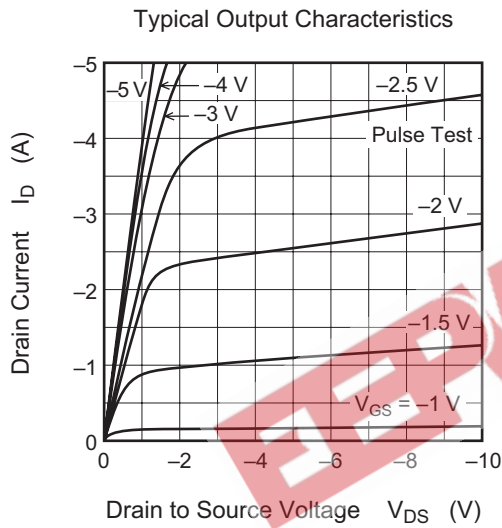
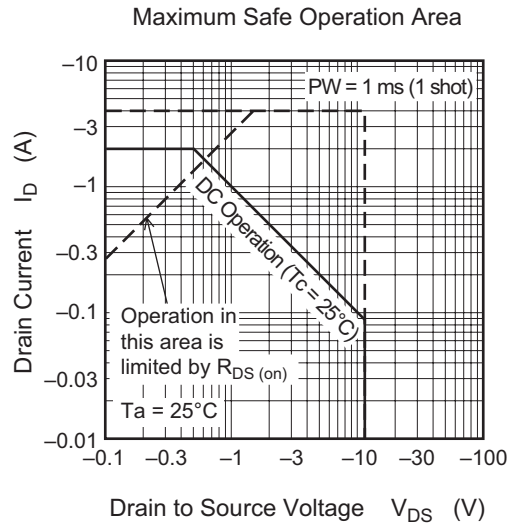
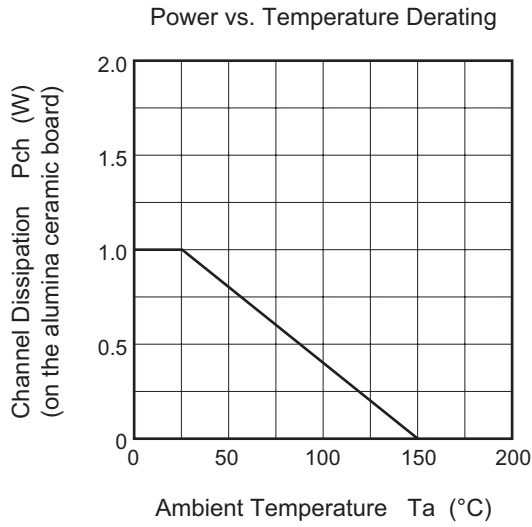
Electrical Characteristics

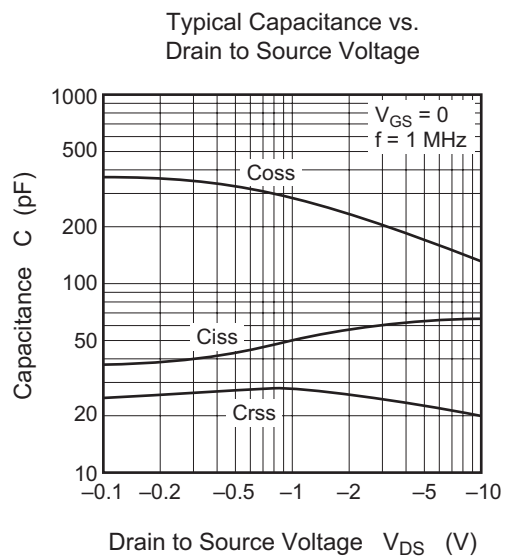
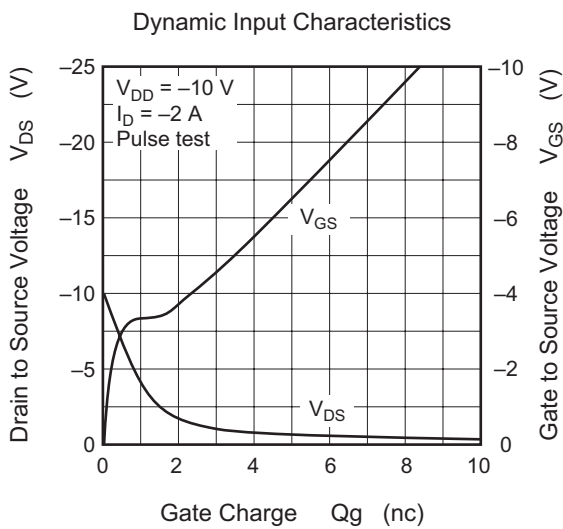
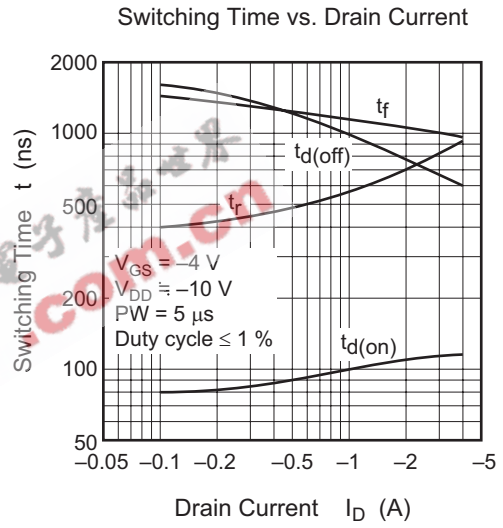
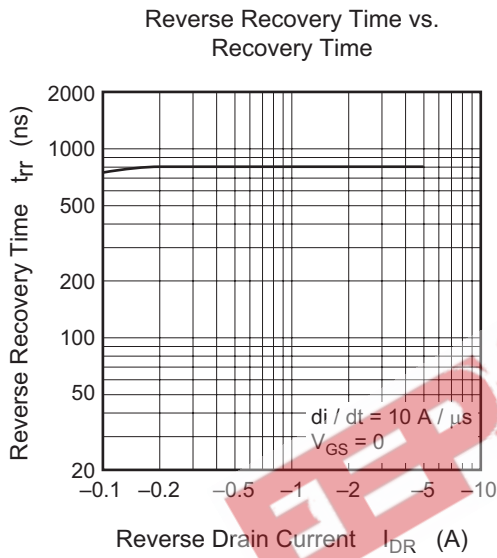
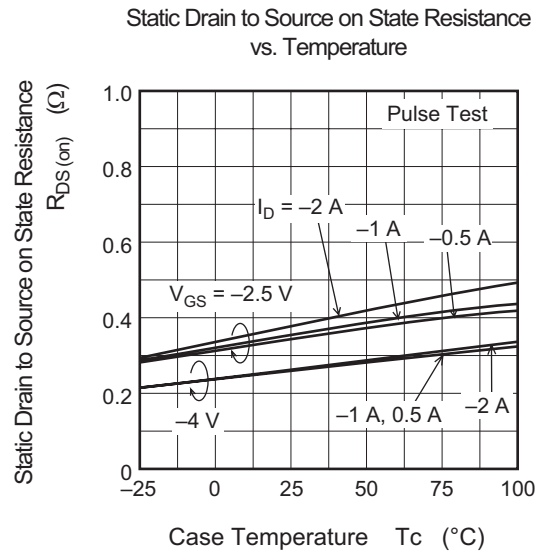
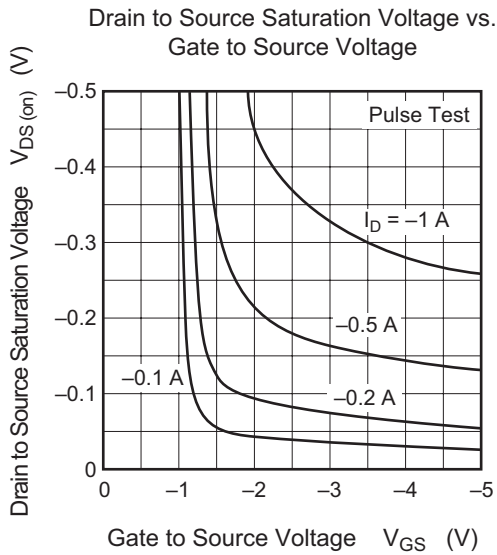
(Ta = 25°C)

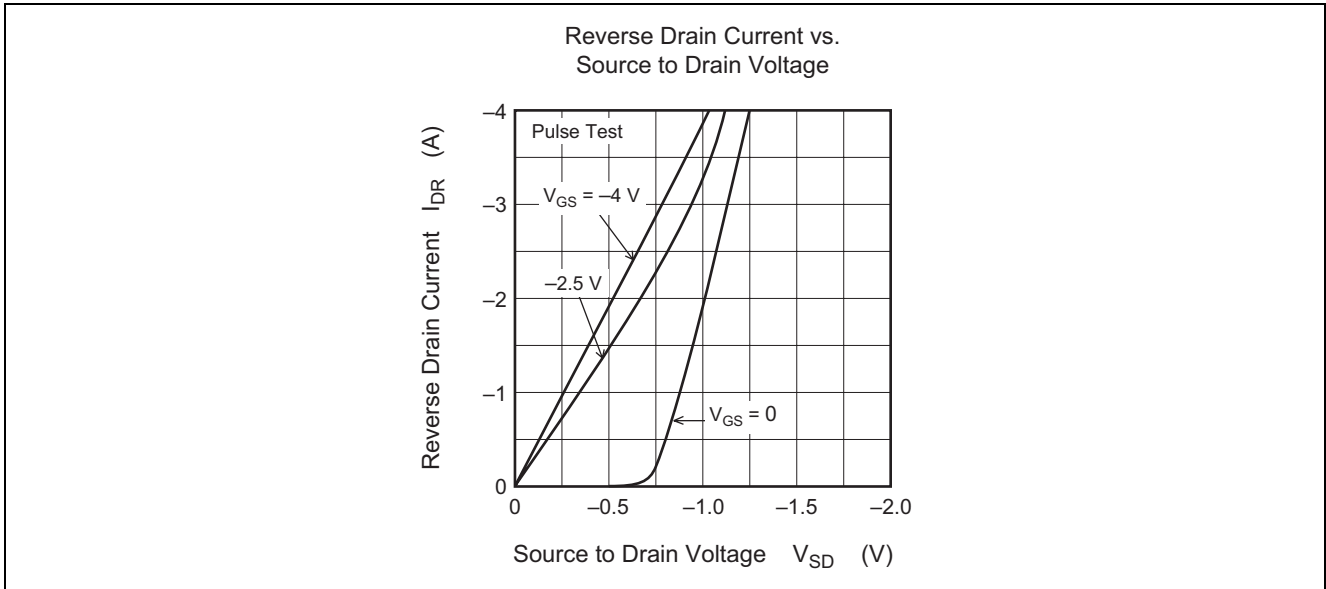
| Item | Symbol | Min | Typ | Max | Unit | Test Conditions |
|--|------------------------|------|------|------|------|---|
| Drain to source breakdown voltage | V _{(BR) DSS} | -12 | — | — | V | I _D = -1 mA, V _{GS} = 0 |
| Gate to source breakdown voltage | V _{(BR) GSS} | ±7 | — | — | V | I _G = ±10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

Note: 3. Pulse test

Main Characteristics

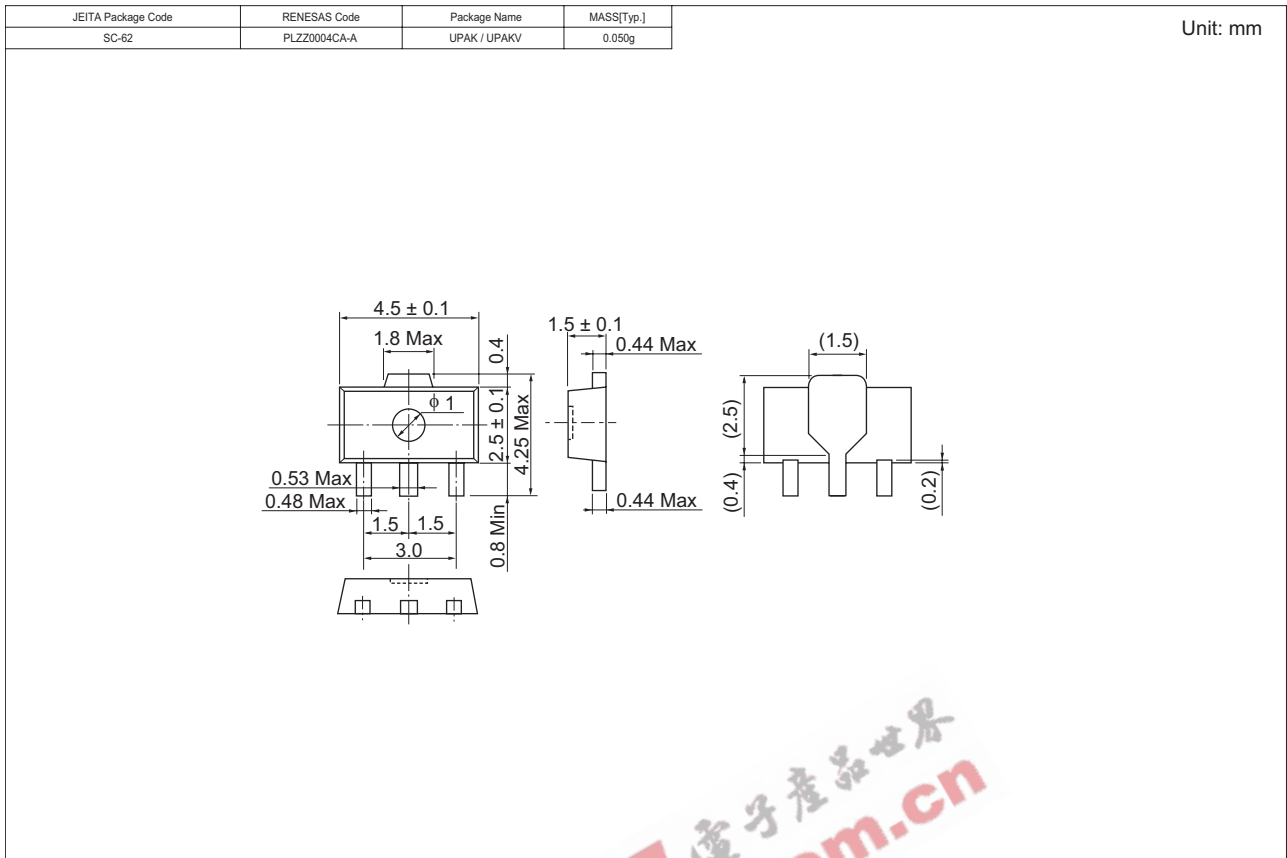






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Package Dimensions



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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