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

April 1st, 2010

Renesas Electronics Corporation

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

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2SJ317 Silicon P Channel MOS FET

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

Description

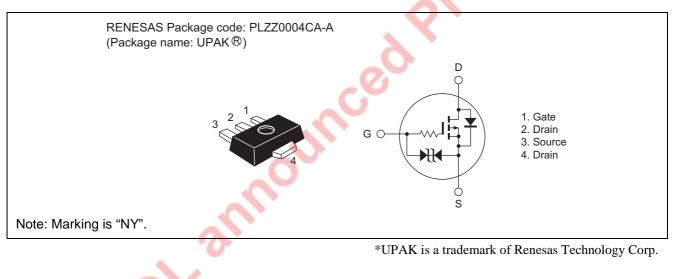
High speed power switching

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





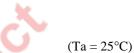
Absolute Maximum Ratings

			$(Ta = 25^{\circ}C)$
Item	Symbol	Value	Unit
Drain to source voltage	V _{DSS}	-12	V
Gate to source voltage	V _{GSS}	-7	V
Drain current	ID	±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	Pch Note 2	1	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

Notes: 1. PW \leq 100 μ s, duty cycle \leq 10%

2. Value on the alumina ceramic board $(12.5 \times 20 \times 0.7 \text{ mm})$

Electrical Characteristics

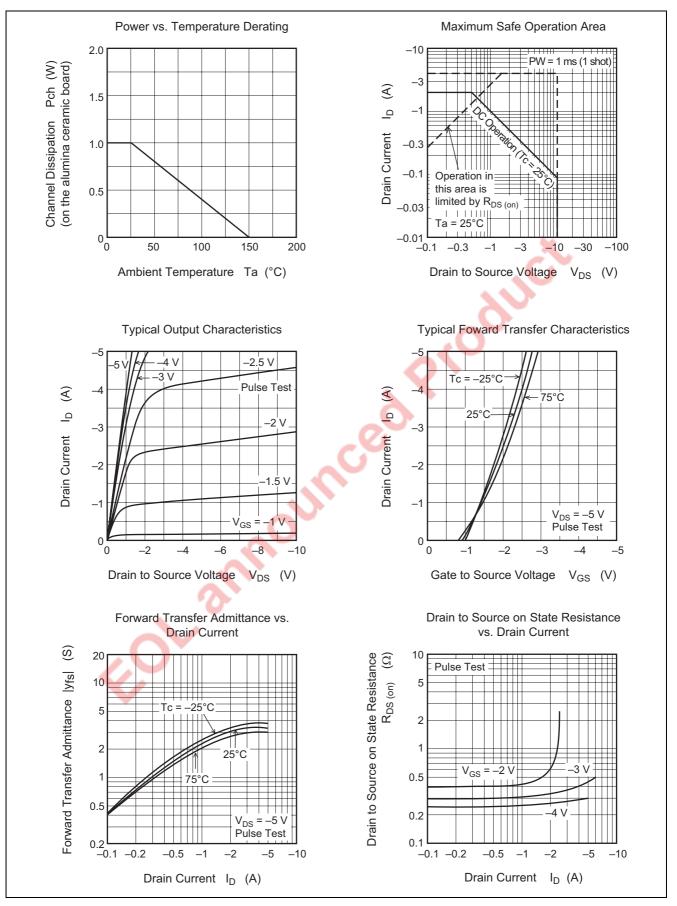


Item	Symbol	Min	Тур	Max	Unit	Test Conditions
Drain to source breakdown voltage	V (BR) DSS	-12	—	—	V	$I_{\rm D} = -1 {\rm mA}, {\rm V}_{\rm GS} = 0$
Gate to source breakdown voltage	V (BR) GSS	±7	_	—	V	$I_{G} = \pm 10 \ \mu A, V_{DS} = 0$
Gate to source leak current	I _{GSS}	—	—	±5	μA	$V_{GS} = \pm 6.5 \text{ V}, V_{DS} = 0$
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	$I_D = -100 \ \mu A, \ V_{DS} = -5 \ V$
Static drain to source on state resistance	R _{DS (on) 1}	—	0.4	0.7	Ω	$I_D = -0.5 \text{ A}, V_{GS} = -2.2 \text{ V}^{\text{Note 3}}$
	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	Ciss	7	63	—	pF	$V_{DS} = -5 V$
Output capacitance	Coss		180	—	pF	$V_{GS} = 0$
Reverse transfer capacitance	Crss	-	23	—	pF	f = 1 MHz
Turn-on delay time	t _{d (on)}	_	500	_	ns	$I_{\rm D} = -0.2 \text{ A}$
Turn-off delay time	t _{d (off)}		2860	—	ns	Vin = –4 V, R_L = 51 Ω

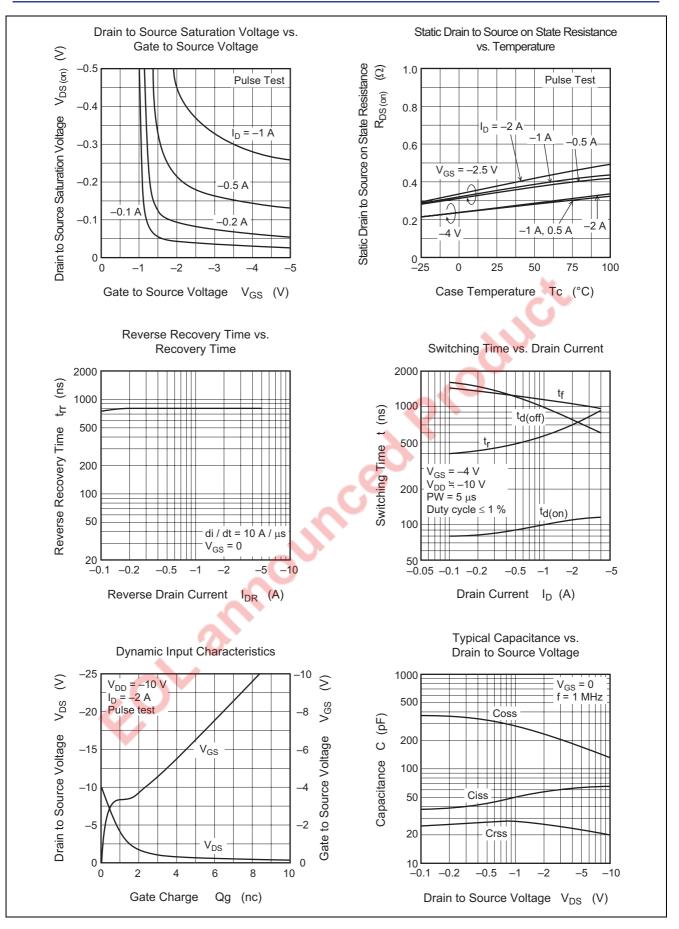
Note: 3. Pulse test



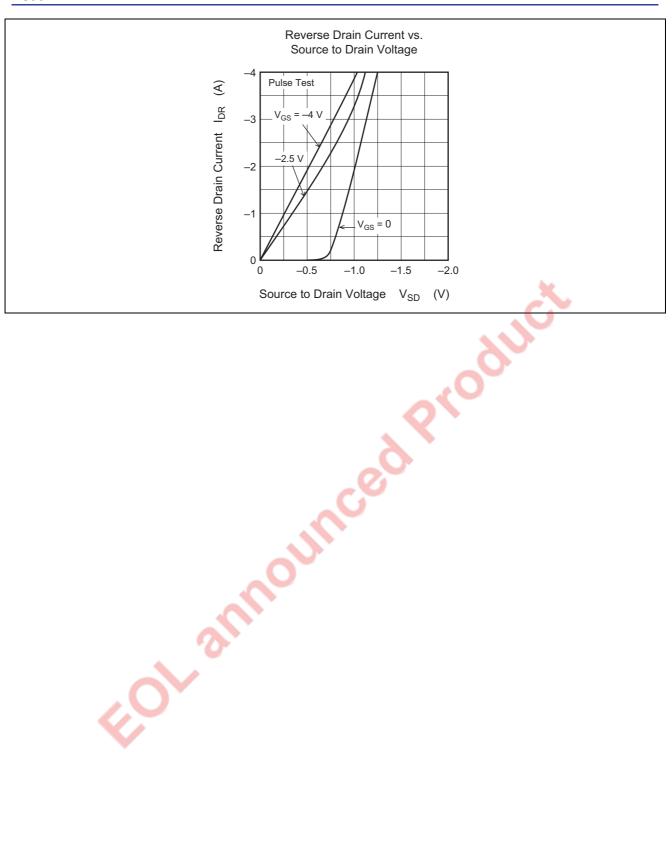
Main Characteristics





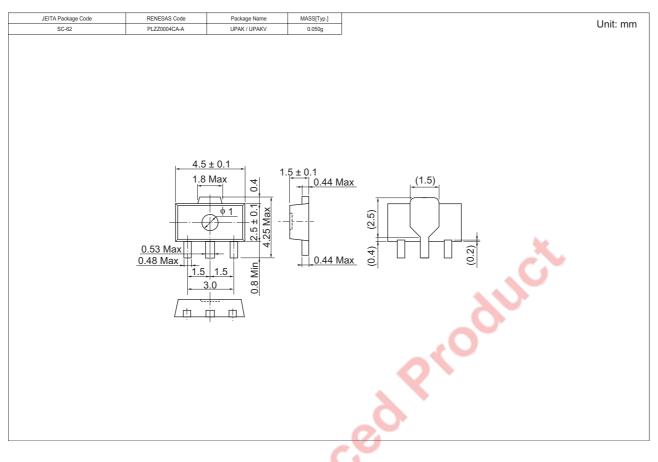








Package Dimensions



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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