



2SJ486

Silicon P Channel MOS FET

REJ03G0869-0300

(Previous: ADE-208-512A)

Rev.3.00

Sep 07, 2005

Description

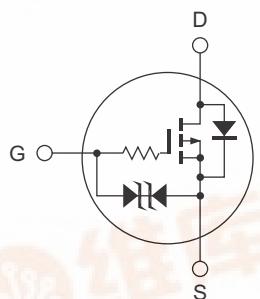
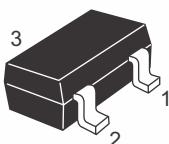
Low frequency power switching

Features

- Low on-resistance
 $R_{DS(on)} = 0.5 \Omega$ typ. (at $V_{GS} = -4$ V, $I_D = -100$ mA)
- 2.5 V gate drive devices.
- Small package (MPAK).

Outline

RENESAS Package code: PLSP0003ZB-A
(Package name: MPACK)



1. Source
2. Gate
3. Drain

Note: Marking is "ZU-".

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Drain to source voltage	V _{DSS}	-30	V
Gate to source voltage	V _{GSS}	±10	V
Drain current	I _D	-0.3	A
Drain peak current	I _D (pulse) ^{Note 1}	-0.6	A
Channel dissipation	P _{ch}	150	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Note: 1. PW ≤ 100 μs, duty cycle ≤ 10%

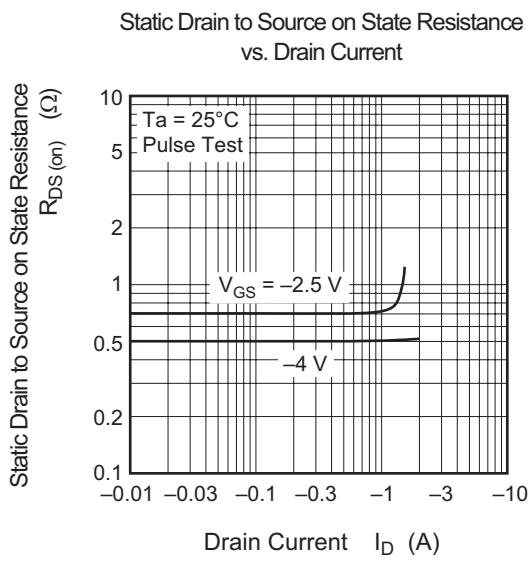
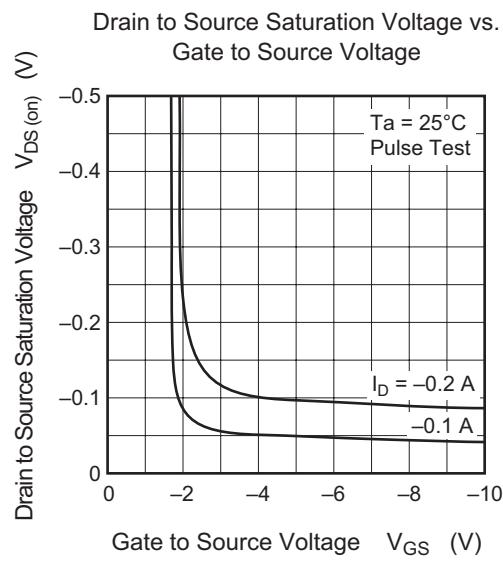
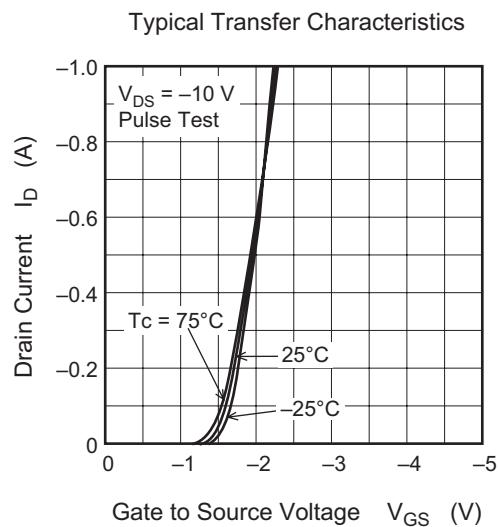
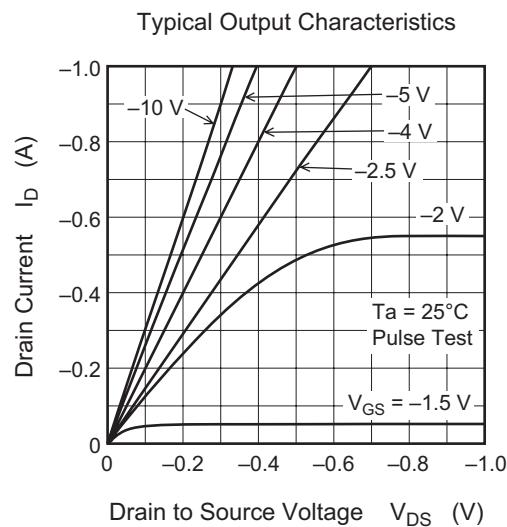
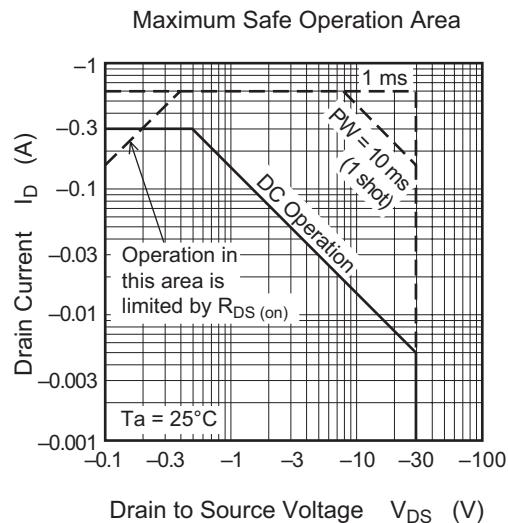
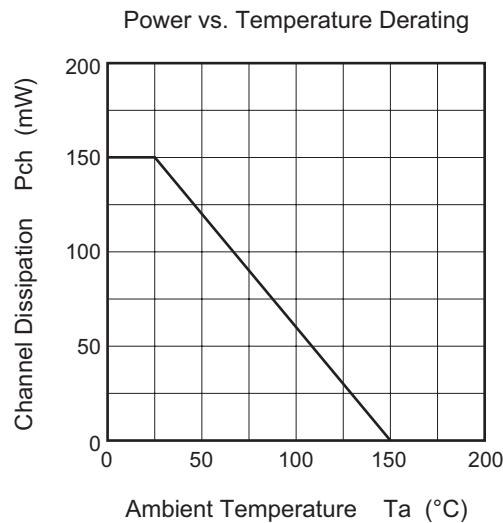
Electrical Characteristics

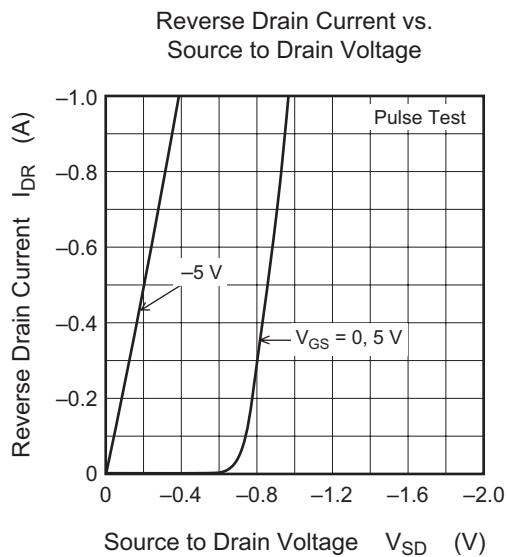
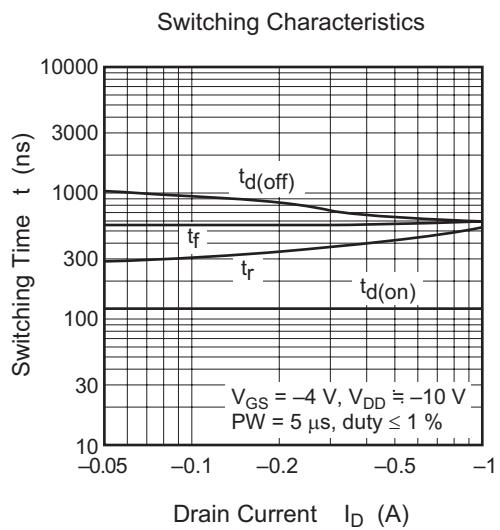
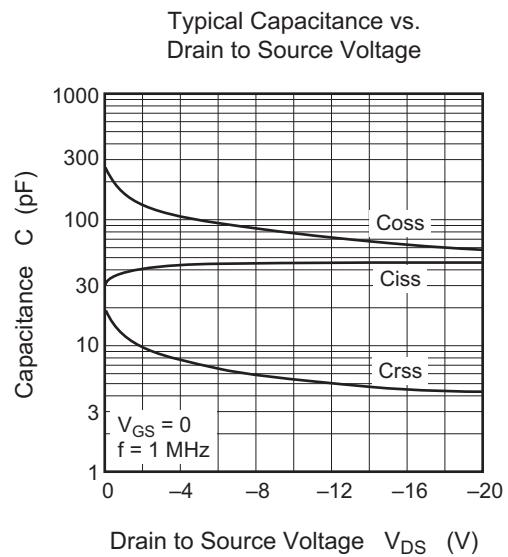
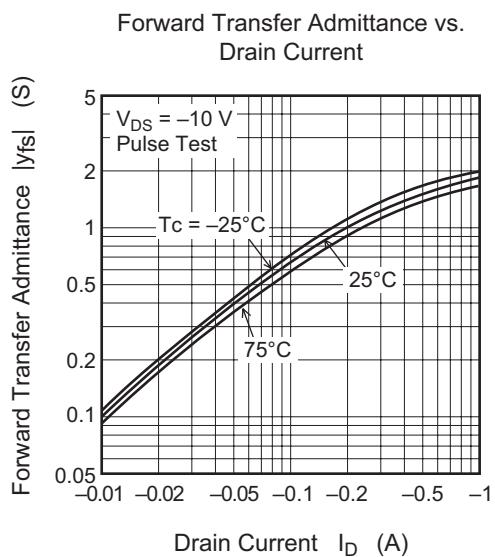
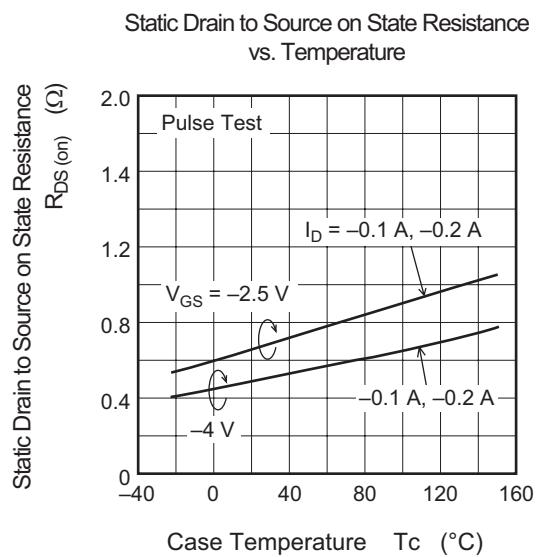
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	V _{(BR) DSS}	-30	—	—	V	I _D = -10 μA, V _{GS} = 0
Gate to source breakdown voltage	V _{(BR) GSS}	±10	—	—	V	I _G = ±100 μA, V _{DS} = 0
Zero gate voltage drain current	I _{DSS}	—	—	-1.0	μA	V _{DS} = -30 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5.0	μA	V _{GS} = ±6.5 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS (off)}	-0.5	—	-1.5	V	I _D = -10 μA, V _{DS} = -5 V
Static drain to source on state resistance	R _{DS (on)}	—	0.5	0.65	Ω	I _D = -100 mA, V _{GS} = -4 V ^{Note 2}
	R _{DS (on)}	—	0.7	1.2	Ω	I _D = -100 mA, V _{GS} = -2.5 V ^{Note 2}
Forward transfer admittance	y _{fs}	0.4	0.65	—	S	I _D = -100 mA, V _{DS} = -10 V ^{Note 2}
Input capacitance	C _{iss}	—	45	—	pF	V _{DS} = -10 V V _{GS} = 0 f = 1 MHz
Output capacitance	C _{oss}	—	76	—	pF	
Reverse transfer capacitance	C _{rss}	—	5.4	—	pF	
Turn-on delay time	t _{d (on)}	—	120	—	ns	V _{GS} = -4 V I _D = -150 mA R _L = 66.6 Ω
Rise time	t _r	—	340	—	ns	
Turn-off delay time	t _{d (off)}	—	850	—	ns	
Fall time	t _f	—	550	—	ns	

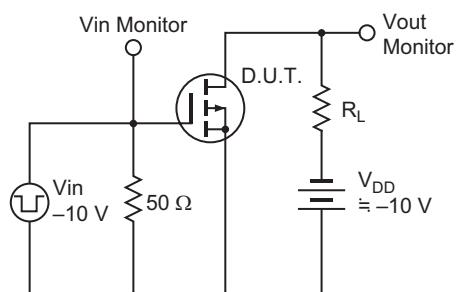
Note: 2. Pulse test

Main Characteristics

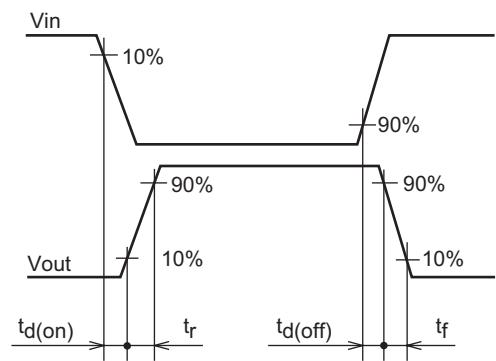




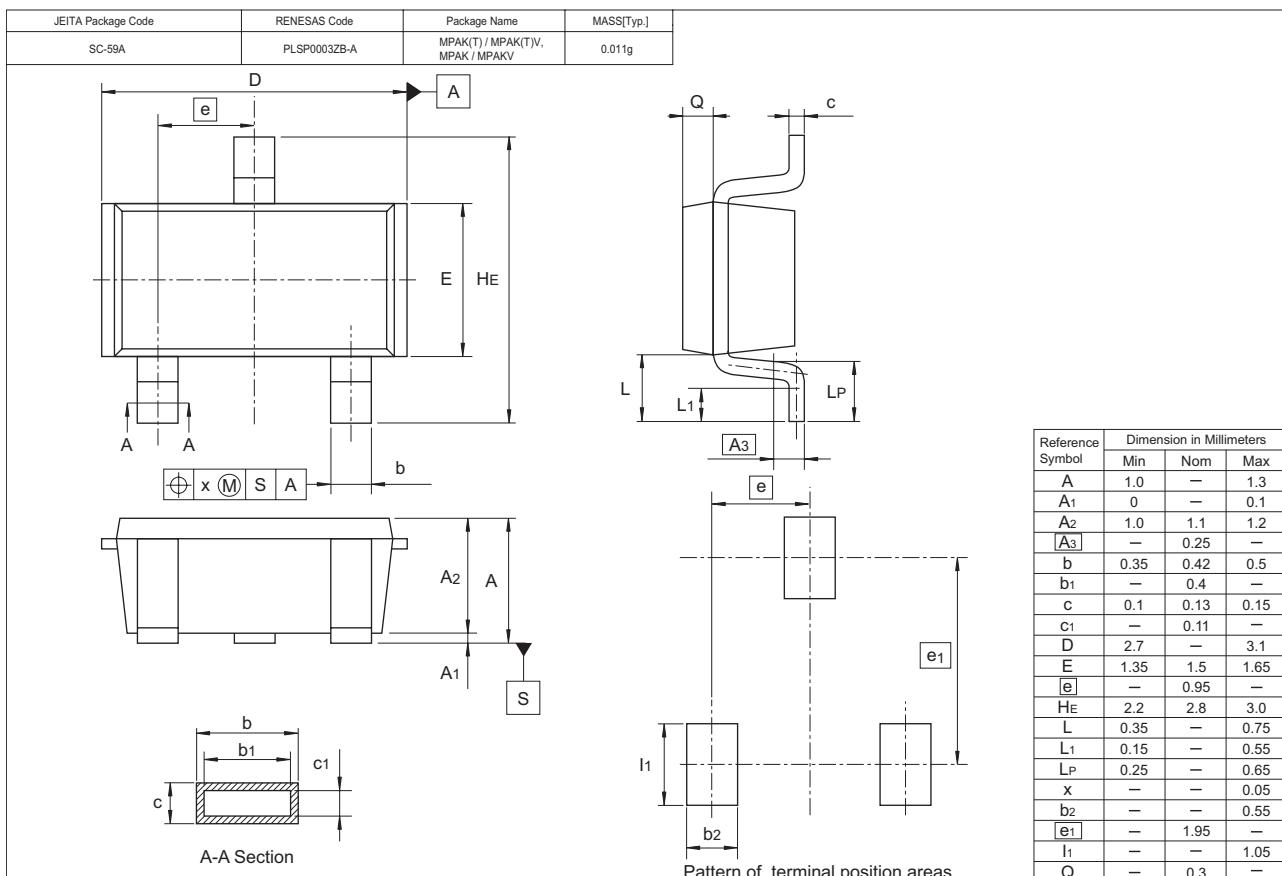
Switching Time Test Circuit



Waveform



Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SJ486ZU-TL-E	3000 pcs	Taping
2SJ486ZU-TR-E	3000 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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10th Floor, No.99, Fushing North Road, Taipei, Taiwan
Tel: <886> (2) 2715-2888, Fax: <886> (2) 2713-2999

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Unit2607 Ruijing Building, No.205 Maoming Road (S), Shanghai 200020, China
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Renesas Technology Korea Co., Ltd.
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Tel: <82> 2-796-3115, Fax: <82> 2-796-2145

Renesas Technology Malaysia Sdn. Bhd.
Unit 906, Block B, Menara Amcorp, Amcorp Trade Centre, No.18, Jalan Persiaran Barat, 46050 Petaling Jaya, Selangor Darul Ehsan, Malaysia
Tel: <603> 7955-9390, Fax: <603> 7955-9510