

To our customers,

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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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2SK2373

Silicon N Channel MOS FET

REJ03G1009-0300

Rev.3.00

Dec 27, 2006

Application

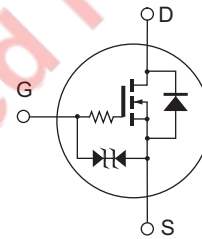
High speed power switching

Features

- Low on-resistance
- Small package
- Low drive current
- 4 V gate drive device can be driven from 5 V source.
- Suitable for low signal load switch

Outline

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



1. Source
2. Gate
3. Drain

Note: Marking is "ZE-".

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V_{DS}	30	V
Gate to source voltage	V_{GS}	± 20	V
Drain current	I_D	0.2	A
Drain peak current	$I_{D(pulse)}^{*1}$	0.4	A
Body to drain diode reverse drain current	I_{DR}	0.2	A
Channel dissipation	P_{ch}^{*2}	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

Note: 1. $PW \leq 100 \mu s$, duty cycle $\leq 10 \%$

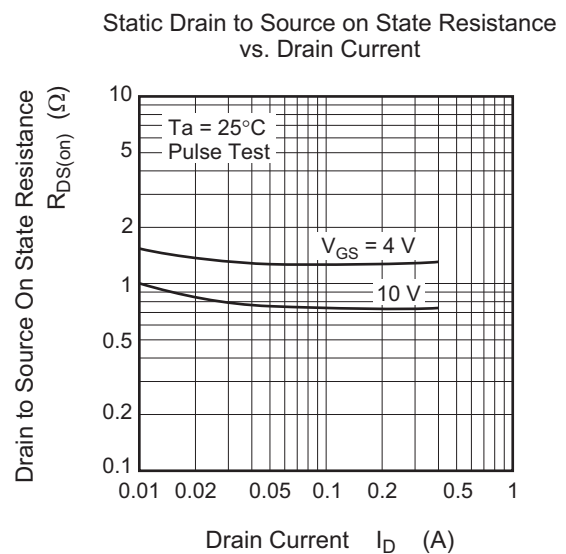
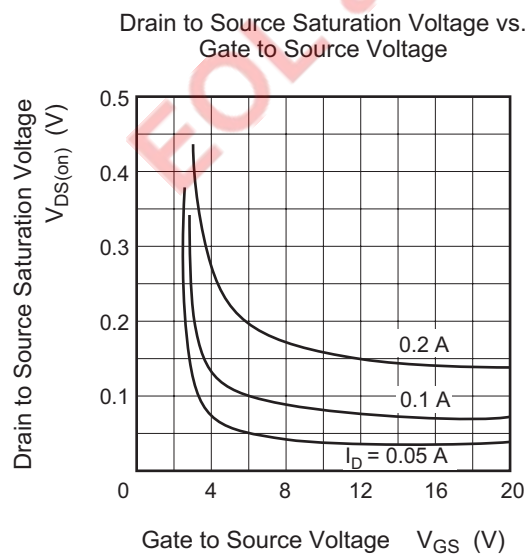
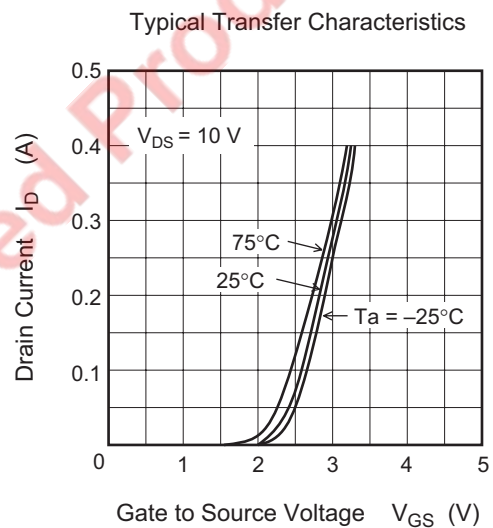
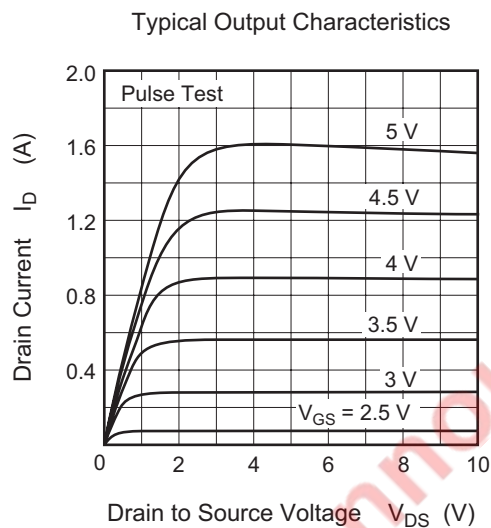
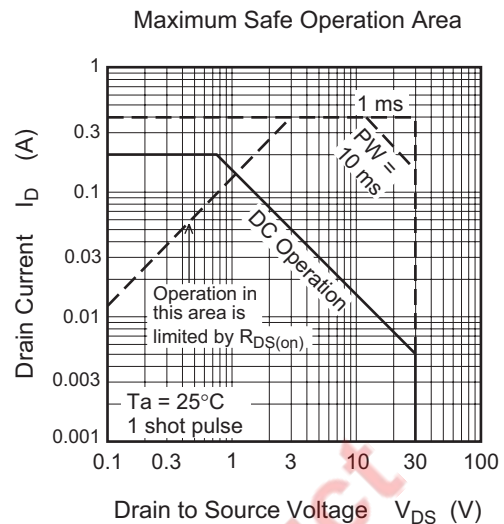
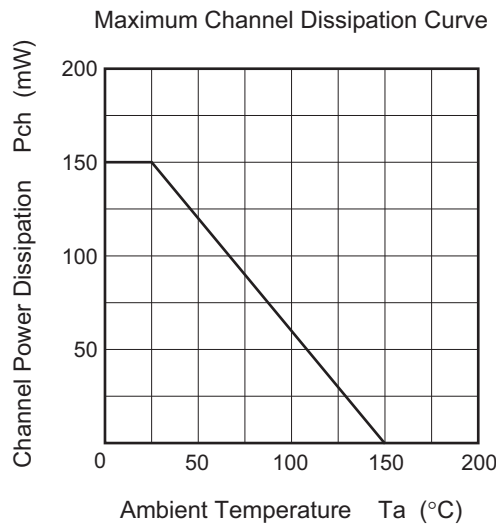
Electrical Characteristics

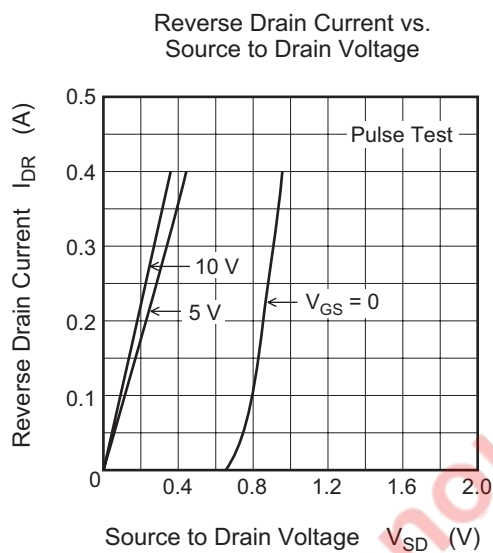
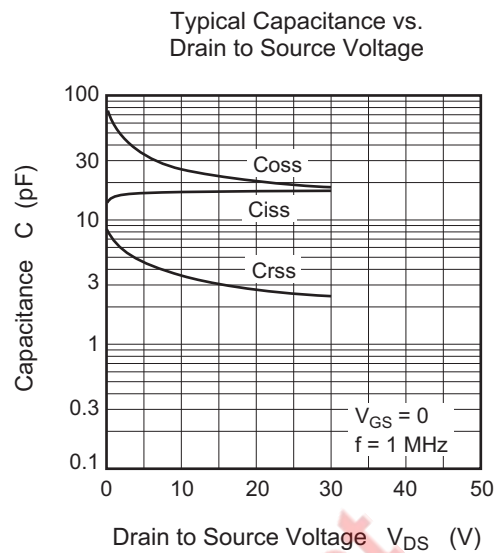
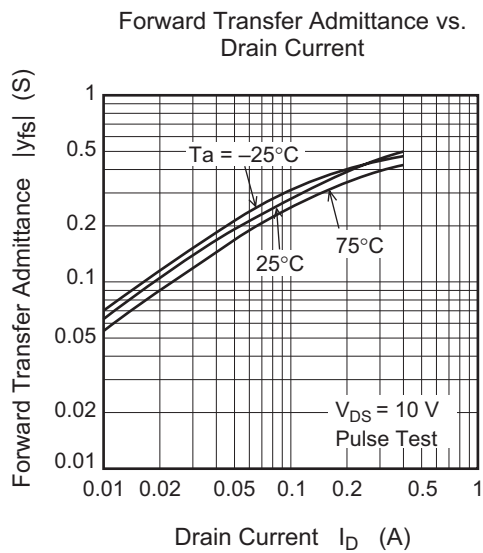
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	$V_{(BR)DS}$	30	—	—	V	$I_D = 100 \mu A$, $V_{GS} = 0$
Gate to source breakdown voltage	$V_{(BR)GS}$	± 20	—	—	V	$I_G = \pm 100 \mu A$, $V_{DS} = 0$
Gate to source leak current	I_{GSS}	—	—	± 2	μA	$V_{GS} = \pm 16 V$, $V_{DS} = 0$
Zero gate voltage drain current	I_{DSS}	—	—	1	μA	$V_{DS} = 30 V$, $V_{GS} = 0$
Gate to source cutoff voltage	$V_{GS(off)}$	1.0	—	2.0	V	$I_D = 10 \mu A$, $V_{DS} = 5 V$
Static drain to source on state resistance	$R_{DS(on)}$	—	1.4	7.5	Ω	$I_D = 20 mA$, $V_{GS} = 4 V^{*2}$
		—	1.0	7.0	Ω	$I_D = 10 mA$, $V_{GS} = 10 V^{*2}$
Input capacitance	C_{iss}	—	17.8	—	pF	$V_{DS} = 10 V$, $V_{GS} = 0$, $f = 1 MHz$
Output capacitance	C_{oss}	—	25.4	—	pF	
Reverse transfer capacitance	C_{rss}	—	3.7	—	pF	
Turn-on delay time	$t_{d(on)}$	—	50	—	ns	$I_D = 0.1 A$, $V_{GS} = 10 V$, $R_L = 100 \Omega$, $PW = 2 \mu s$
Rise time	t_r	—	125	—	ns	
Turn-off delay time	$t_{d(off)}$	—	660	—	ns	
Fall time	t_f	—	400	—	ns	

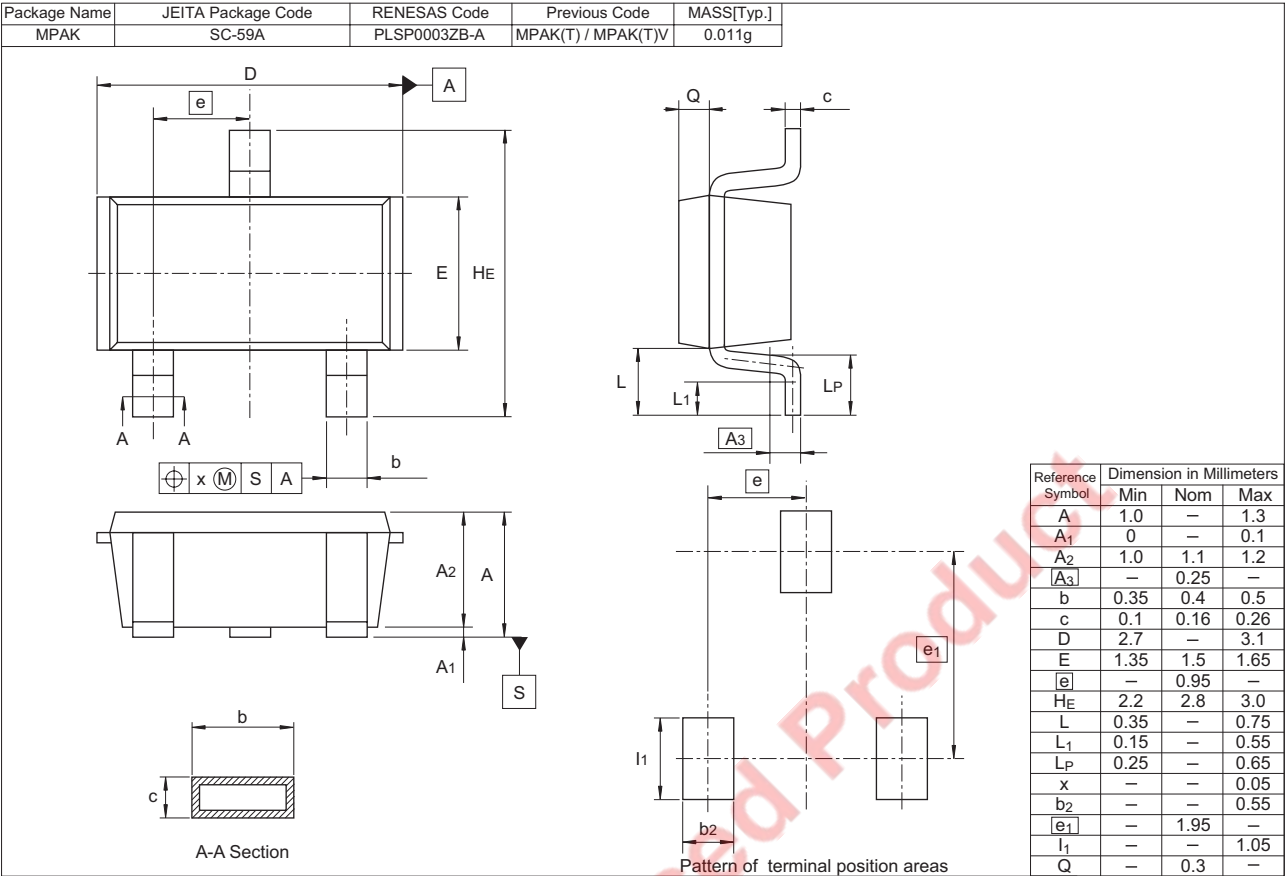
Note: 2. Pulse Test

Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SK2373ZE-TL-E	3000 pcs	Taping
2SK2373ZE-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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