

# 2SK2373

## Silicon N Channel MOS FET

REJ03G1009-0300

Rev.3.00

Dec 27, 2006

### Application

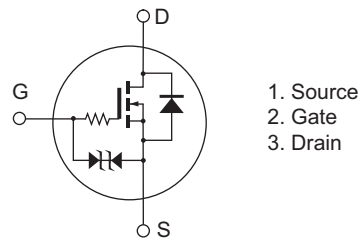
High speed power switching

### 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)



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	$V_{GS}$	$\pm 20$	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  $\leq 10 \%$ 

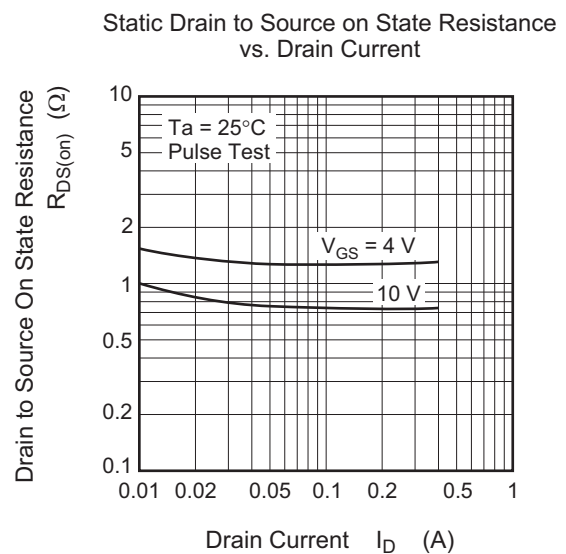
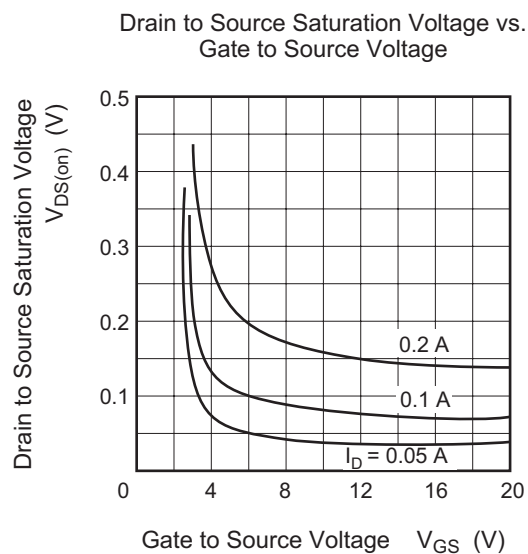
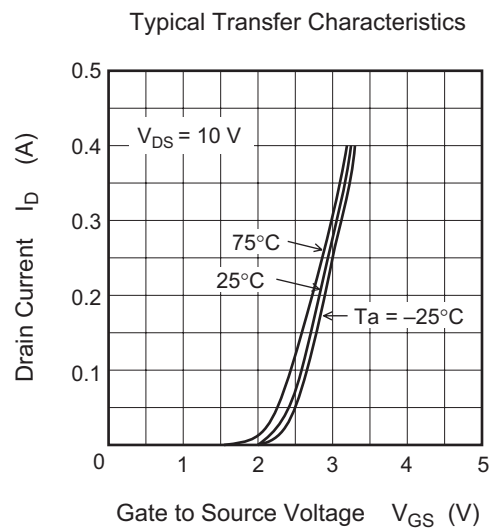
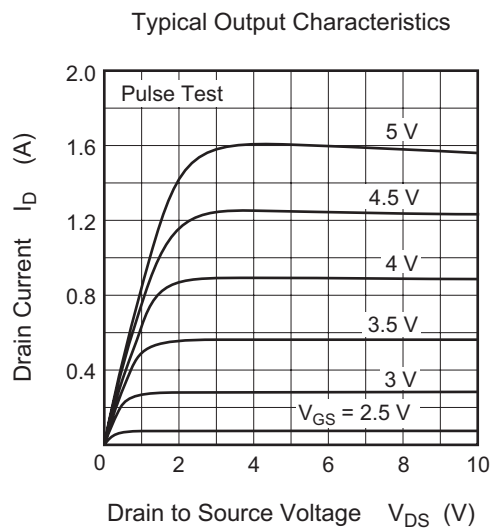
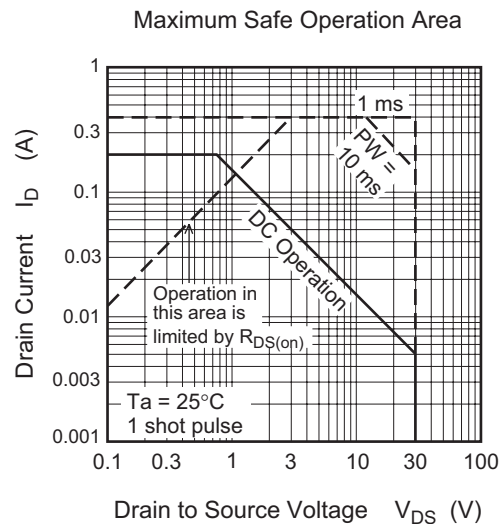
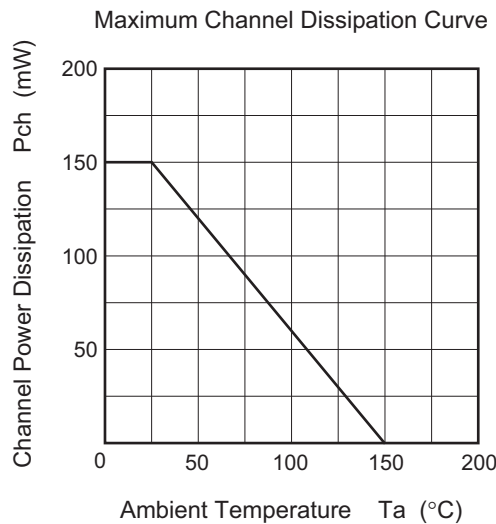
## Electrical Characteristics

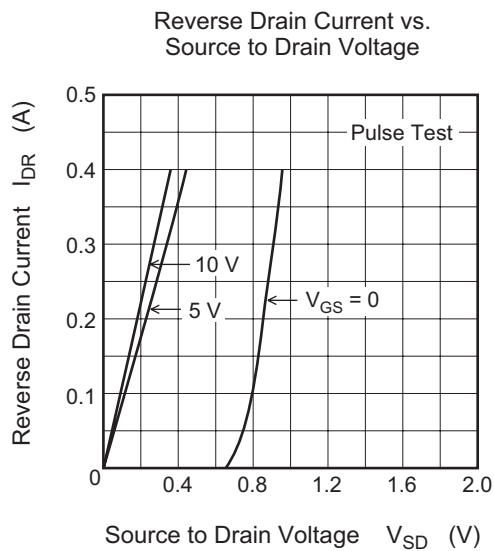
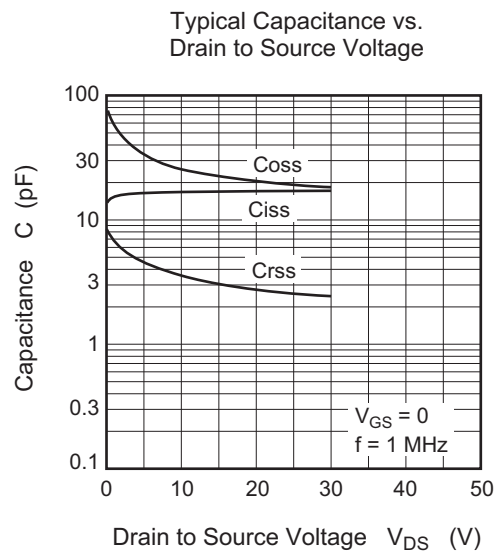
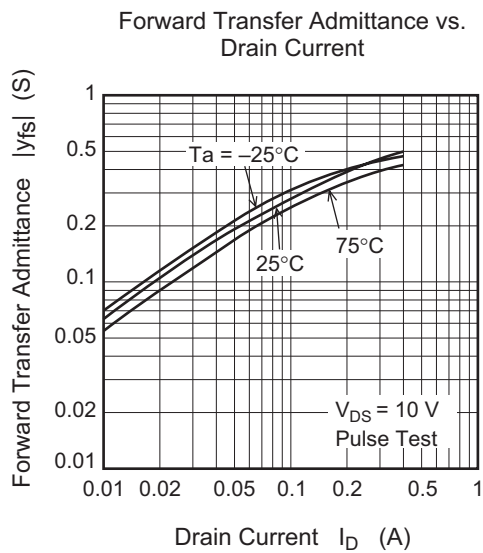
(Ta = 25°C)

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	$V_{(BR)GS}$	$\pm 20$	—	—	V	$I_G = \pm 100 \mu A$ , $V_{DS} = 0$
Gate to source leak current	$I_{GSS}$	—	—	$\pm 2$	$\mu A$	$V_{GS} = \pm 16 V$ , $V_{DS} = 0$
Zero gate voltage drain current	$I_{DSS}$	—	—	1	$\mu A$	$V_{DS} = 30 V$ , $V_{GS} = 0$
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	$\Omega$	$I_D = 20 mA$ , $V_{GS} = 4 V^{*2}$
		—	1.0	7.0	$\Omega$	$I_D = 10 mA$ , $V_{GS} = 10 V^{*2}$
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	

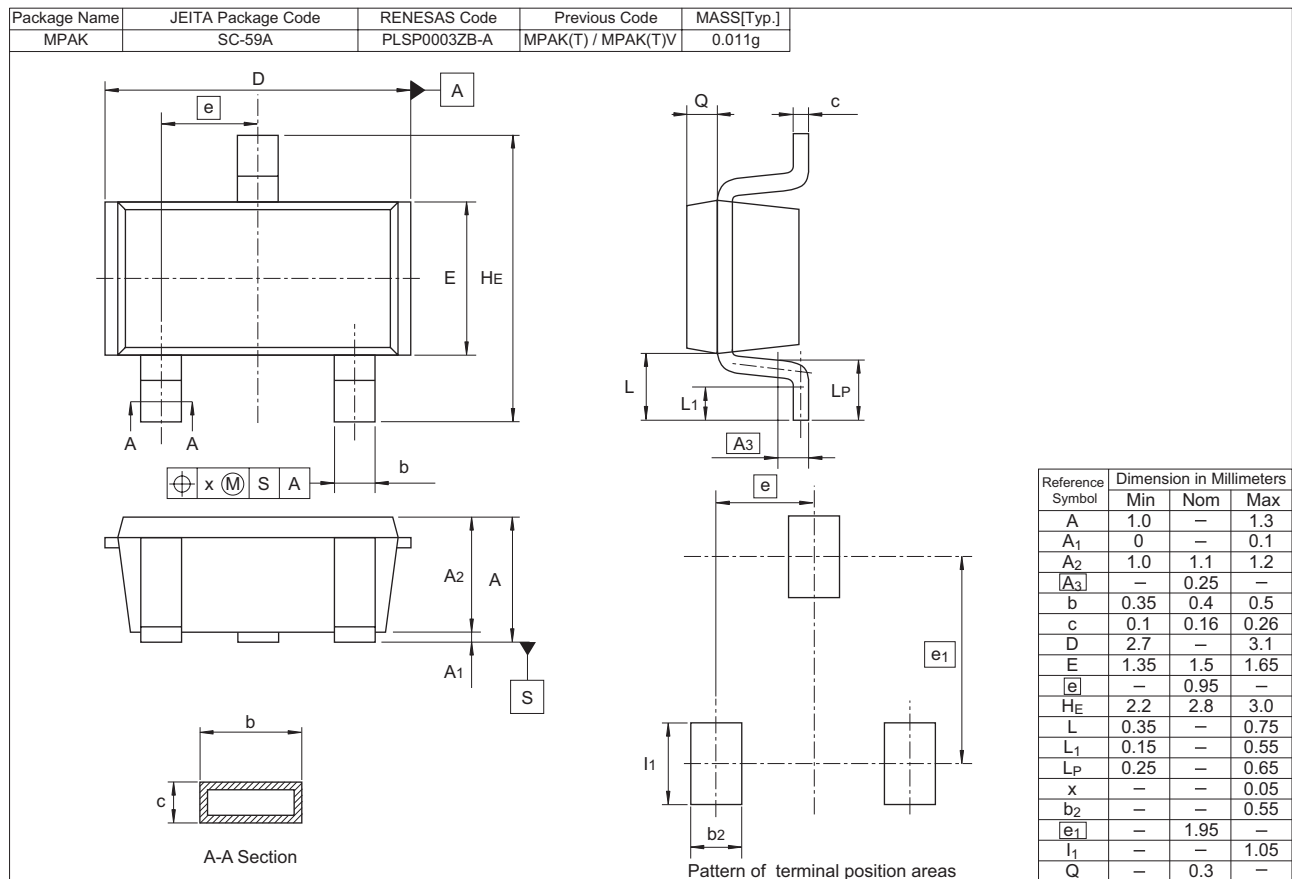
Note: 2. Pulse Test

## 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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