

2SK2373

Silicon N Channel MOS FET

REJ03G1009-0300
Rev.3.00
Dec 27, 2006

Application

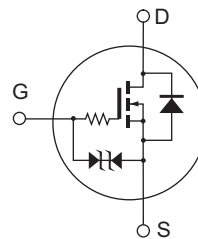
High speed power switching

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_{DSS}	30	V
Gate to source voltage	V_{GSS}	± 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 $\leq 10 \%$

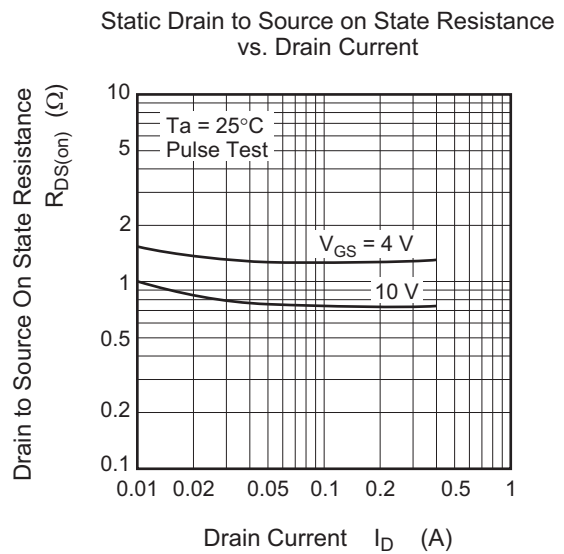
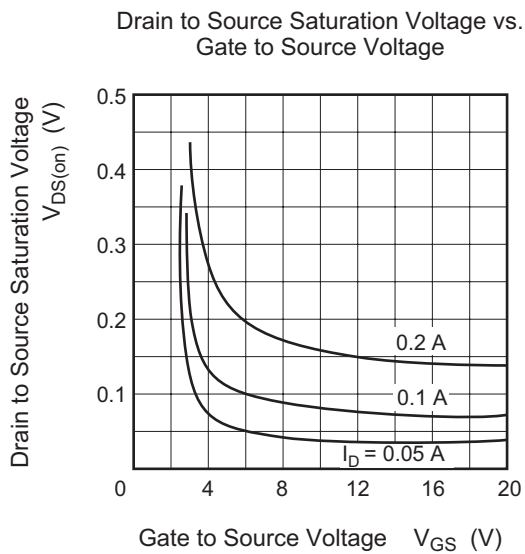
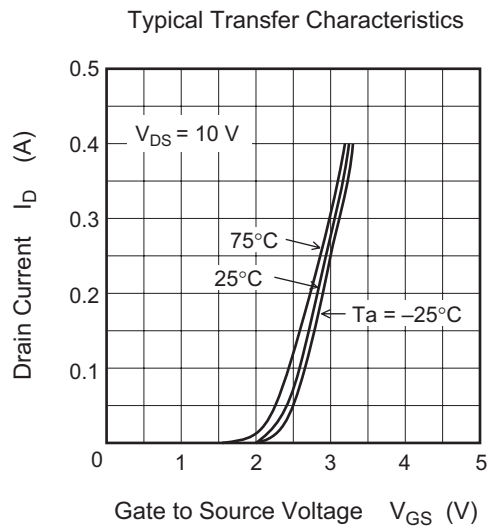
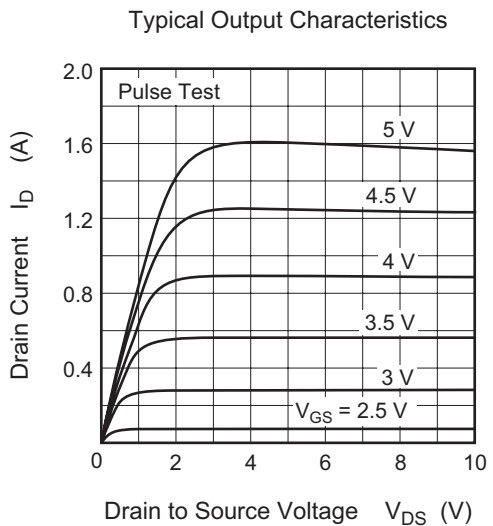
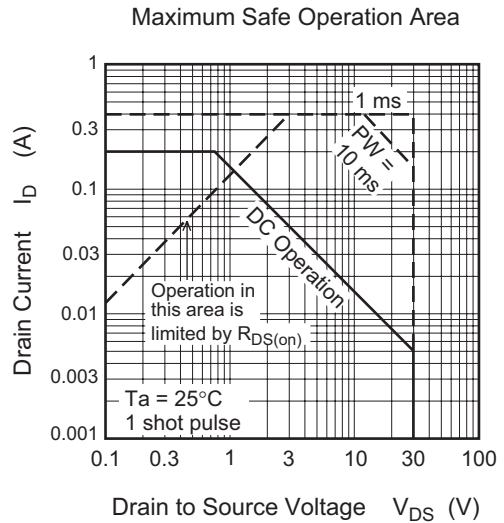
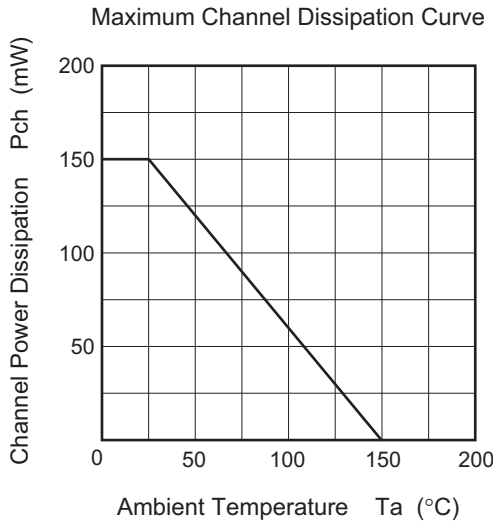
Electrical Characteristics

(Ta = 25°C)

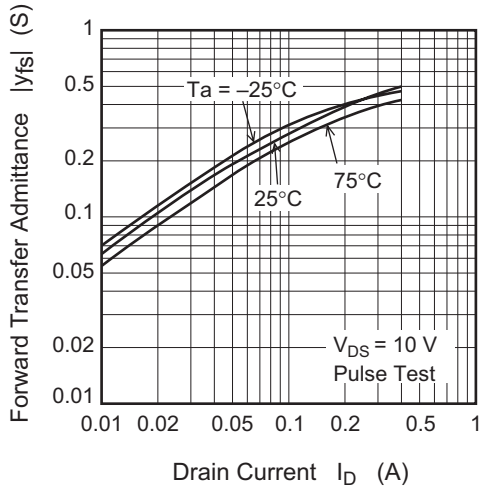
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Drain to source breakdown voltage	$V_{(BR)DSS}$	30	—	—	V	$I_D = 100 \mu A, V_{GS} = 0$
Gate to source breakdown voltage	$V_{(BR)GSS}$	± 20	—	—	V	$I_G = \pm 100 \mu A, V_{DS} = 0$
Gate to source leak current	I_{GSS}	—	—	± 2	μA	$V_{GS} = \pm 16 V, V_{DS} = 0$
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

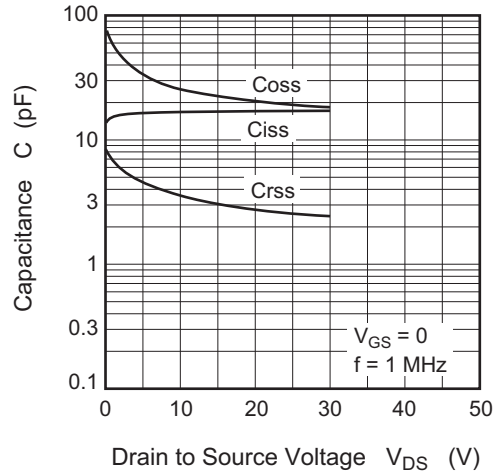
Main Characteristics



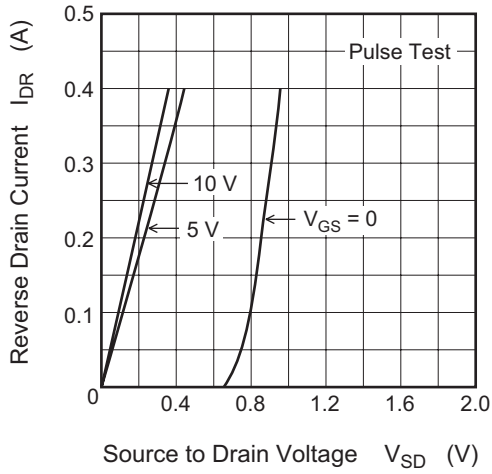
Forward Transfer Admittance vs. Drain Current



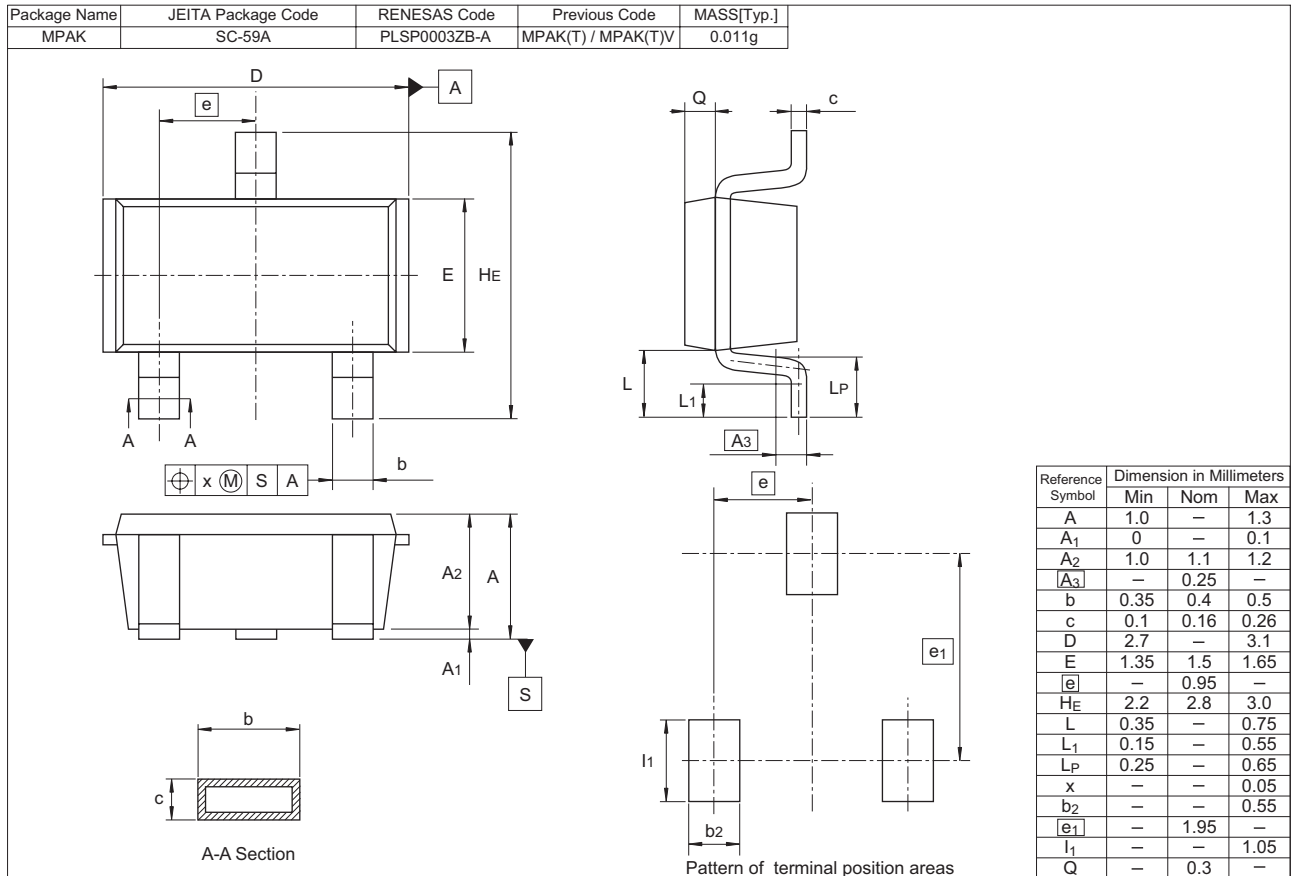
Typical Capacitance vs. Drain to Source Voltage



Reverse Drain Current vs. Source to Drain Voltage



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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