

**PS2533, PS2561, PS2561A, PS2561B,
PS2561D, PS2562, PS2565, PS2571, PS2581L,
PS2581AL, PS2761B-1, PS2861B-1,
PS7341-1A*, PS7342-1A*, **, PS7360-1A*,
PS8501*, PS8502*, PS8551L4*, PS9513*,
PS9551L4*, PS9552*, PS9587***

● **NEMKO Certificate**

Standard EN 60065, EN 60950

Reference No. P13217067

* Made in Japan only

** Phased out


S.KAWATA

Department Manager
Technical Marketing Department
Compound Semiconductor Devices Business Division
2nd Solution Business Unit
Renesas Electronics Corporation

Product	Optoinsulator for bridging of reinforced insulation
Applicant	Renesas Electronics Corporation Compound Semiconductor Devices Quality Assurance Department, 1753, Shimonumabe, Nakahara-ku Kawasaki, Kanagawa 211-8668 Japan
Manufacturer	Renesas Electronics Corporation Compound Semiconductor Devices Quality Assurance Department, 1753, Shimonumabe, Nakahara-ku Kawasaki, Kanagawa 211-8668 Japan
Factory	<input checked="" type="checkbox"/> See page 2
Ratings	
Trade mark	
Model / Type Ref.	PS25*****_*
Principal characteristics	See additional information page 3-4 <input type="checkbox"/> See next page(s)
A sample of the product was tested and found to be in conformity with	TRON EN 60065:2002;A1;A11;A2;A12 OFF EN 60950-1:2006;A11;A1;A12
Validity	This certificate documents conformity with the standards shown, and also applies as license for use of Nemkos name and certification mark. The certificate and license is valid as long as the applicable conditions are complied with, and provided that any changes to the product are notified to Nemko for acceptance prior to implementation. New standards or amendments to the standards may imply that the product design must be updated and/or that re-testing and re-certification is necessary.
Additional information	<input checked="" type="checkbox"/> Additional information on page 3
Additional model(s)	<input checked="" type="checkbox"/> See next page(s)

Date of issue 11-04-2013



Signature

Skule Moe

Certification Department

Product	Optoinsulator for bridging of reinforced insulation
Pos. No	1
Model / Type Ref.	PS2761B-1
Trade mark (if different from page 1)	
Rating	
Principal characteristics	See additional information page 3-4
Product	Optoinsulator for bridging of reinforced insulation
Pos. No	2
Model / Type Ref.	PS2861B-1
Trade mark (if different from page 1)	
Rating	
Principal characteristics	See additional information page 3-4
Product	Optoinsulator for bridging of reinforced insulation
Pos. No	3
Model / Type Ref.	PS73***-1A
Trade mark (if different from page 1)	
Rating	
Principal characteristics	See additional information page 3-4
Product	Optoinsulator for bridging of reinforced insulation
Pos. No	4
Model / Type Ref.	PS85****
Trade mark (if different from page 1)	
Rating	
Principal characteristics	See additional information page 3-4
Product	Optoinsulator for bridging of reinforced insulation
Pos. No	5
Model / Type Ref.	PS95****
Trade mark (if different from page 1)	
Rating	
Principal characteristics	See additional information page 3-4

Factories:

Date of issue 11-04-2013



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Taiwan

Kyushu Denshi Co., Ltd.
89, Nagasaki Shiranui-machi
Uki-shi Kumamoto
869-0562
Japan

Additional information

Types marked with one or more *: Following types is included: PS2533-1, PS2533L-1, PS2561-1, PS2561L-1, PS2561L1-1, PS2561L2-1, PS2561A-1, PS2561AL-1, PS2561AL1-1, PS2561AL2-1, PS2561B-1, PS2561BL-1, PS2561BL1-1, PS2561BL2-1, PS2561D-1, PS2561DL-1, PS2561DL1-1, PS2561DL2-1, PS2562-1, PS2562L-1, PS2562L1-1, PS2562L2-1, PS2565-1, PS2565L-1, PS2565L1-1, PS2565L2-1, PS2566-1, PS2566L-1, PS2566L1-1, PS2566L2-1, PS2571-1, PS2571-4, PS2571L-1, PS2571 L-4, PS2581L1, PS2581L2, PS2581AL1, PS2581AL2, PS7341-1A, PS7341L-1A, PS7342-1 A, PS7342L-1A, PS7360-1A, PS7360L-1A, PS8501, PS8501L1, PS8501L2, PS8501L3, PS8502, PS8502L1, PS8502L2, PS8502L3, PS8551L4, PS9513, PS9513L1, PS9513L2, PS9513L3, PS9551L4, PS9552, PS9552L1, PS9552L2, PS9552L3, PS9587, PS9587L1, PS9587L2, PS9587L3

Max operating temperature: 110°C for type PS2561B**-1, PS2561D**-1, PS2761B-1, PS2861B-1, 100°C for type PS25*****-* (except mentioned types), PS850***, PS9513**, PS9552**, 85°C for type PS73***-1A, PS9587**, PS8551L4, PS9551L4

The following tests have been performed with positive result:

General

- Creepage distance between input and output : Type PS2761B-1, PS2861B-1: >5 mm, PS2561DL1-1, PS2561DL2-1, PS2581L*, PS2581AL*, PS****L1, PS****L2, PS****L4, PS73***-1A: >8mm, Type PS25*****-* (except mentioned), PS****, PS****L, PS****L3: >7mm,
- Distance through insulation : >0.4 mm
- Humidity test: 48h. in 93% relative humidity. Electric strength test 3000 V/1 min.
- Internal creepage distance not measured, tests according to EN 60950 2.10.11 have been performed with positive result.

For a RMS working voltage up to 250V for samples with >5mm, 350V for samples with >7mm, 450V for samples with >8mm creepage distance between input and output. Pollution degree 2 and material group IIIa or IIIb,

Date of issue 11-04-2013



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N-0314 Oslo, Norway	Oslo		Enterprise number:	NO 974404532

Special tests according to EN 60950

• Thermal cycling test. 10 cycles. Each cycle: 110°C for type PS2561B**-1, PS2561D**-1, PS2761B-1, PS2861B-1, 100°C for type PS2533*-1, PS2561**-1, PS2561A**-1, PS2562**-1, PS2565**-1, PS2566**-1, PS2571*-, PS2581***, PS73***-1A, PS850*** PS9513**, PS9552**, 85°C for type PS9587**, PS8551L4, PS9551L4, 1 h in 25°C, 2 h in 0°C and 1 h in 25°C. After the cycling test a humidity test for 48 h in 93% relative humidity. Electric strength test between input and output 5000 V/1 minute

After judgement from case to case, the opto-insulator can bridge basic, supplementary, double or reinforced insulation, provided that the ratings in data sheet are not exceeded in normal operation or under fault conditions in the appliance.

This certificate replaces certificate P13217067, issued 08-04-2013, due to misprint.

Date of issue 11-04-2013



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Quality Assurance Department
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Japan

Vår dato/Our date: Oslo, 11/04/2013
Vår ref/Our reference:
Deres dato/Your date:
Deres ref/Your reference:

Confirmation of validity

We hereby confirm that the optoisolators included in certificate No. P13217067 fulfilled the requirements in standard EN 60950-1:2006;A11;A1;A12 and EN 60065:2002;A1;A11;A2;A12 even between 25 January 2013 and 11 April 2013.

Best regards
Nemko AS



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