

**PS8302, PS8501, PS8502, PS8551L4,
PS9303, PS9305, PS9306, PS9307, PS9308,
PS9309, PS9313, PS9317, PS9324, PS9351,
PS9402, PS9505, PS9506, PS9513, PS9551L4,
PS9552, PS9587**

● **VDE Certificate**

Standard DIN EN 60747-5-2 (VDE 0884 Teil 2)

Certificate No. 40024069



H.TAKAHASHI

Department Manager
Optical Device Engineering
Technical Marketing Department
Compound Semiconductor Devices Business Division
Analog & Power Devices Business Unit
Renesas Electronics Corporation

ZEICHENGENEHMIGUNG MARKS APPROVAL

Renesas Electronics Corporation
1753 Shimonumabe
NAKAHARA-KU, KAWASAKI-SHI, KANAGAWA 211-8668
JAPAN

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is authorized to use for their product

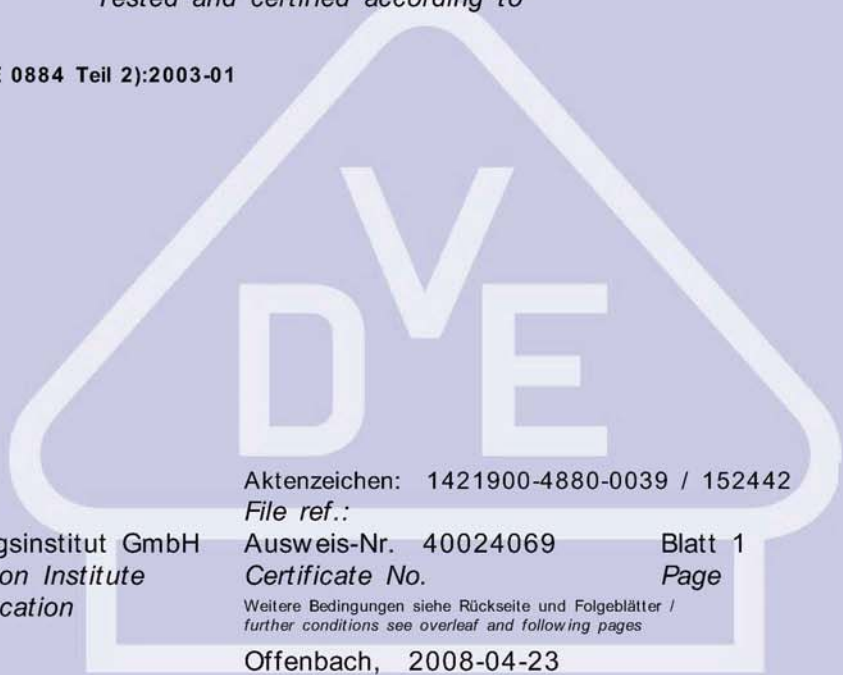
Optokoppler
Optocoupler

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Geprüft und zertifiziert nach /
Tested and certified according to

DIN EN 60747-5-2 (VDE 0884 Teil 2):2003-01



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VDE Testing and Certification Institute
Zertifizierungsstelle / *Certification*

Aktenzeichen: 1421900-4880-0039 / 152442

File ref.:

Ausweis-Nr. 40024069

Blatt 1

Certificate No.

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Weitere Bedingungen siehe Rückseite und Folgeblätter /
further conditions see overleaf and following pages

Offenbach, 2008-04-23

(letzte Änderung/updated 2011-08-11)

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211-8668, JAPAN

Aktenzeichen / *File ref.*

1421900-4880-0039 / 152442 / FG34 / SCT

letzte Änderung / *updated* Datum / *Date*

2011-08-11 2008-04-23

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Optokoppler ***Optocoupler***

Typ(en) / *Type(s)*:

- 1] PS8302L
- 2] PS8302L2
- 3] PS9301L
- 4] PS9301L2
- 5] PS9303L
- 6] PS9303L2
- 7] PS9313L
- 8] PS9313L2
- 9] PS9317L
- 10] PS9317L2
- 11] PS9302L
- 12] PS9306L
- 13] PS9306L2
- 14] PS9305L
- 15] PS9351L
- 16] PS9351L2
- 17] PS9308L
- 18] PS9308L2
- 19] PS9309L
- 20] PS9309L2
- 21] PS9307L
- 22] PS9307L2
- 23] PS9305L2
- 24] PS9324L
- 25] PS9324L2
- 26] PS8501
- 27] PS8501L1
- 28] PS8501L2
- 29] PS8502
- 30] PS8502L1
- 31] PS8502L2
- 32] PS9513
- 33] PS9513L1
- 34] PS9513L2
- 35] PS9587
- 36] PS9587L1

Fortsetzung siehe Blatt 3 /
continued on page 3

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2011-08-11 2008-04-23

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Typ(en) / type(s)

37] PS9587L2
38] PS8551L4
39] PS9551L4
40] PS9552
41] PS9552L1
42] PS9552L2
43] PS8501L3
44] PS8502L3
45] PS9513L3
46] PS9552L3
47] PS9587L3
48] PS9553
49] PS9553L1
50] PS9553L2
51] PS9553L3
52] PS9505
53] PS9505L1
54] PS9505L2
55] PS9505L3
56] PS9506
57] PS9506L1
58] PS9506L2
59] PS9506L3
60] PS9401-2
61] PS9451
62] PS9402

Weitere Angaben
Further information

Anlage Nr. 1_100A, 1_200A
Appendix No. 1_100A; 1_200A

VDE Prüf- und Zertifizierungsinstitut GmbH
VDE Testing and Certification Institute
Fachgebiet FG34
Section FG34

VDE Prüf- und Zertifizierungsinstitut Zeichengenehmigung

Ausweis-Nr. / Beiblatt /
Certificate No. Supplement
40024069

Name und Sitz des Genehmigungs-Inhabers / *Name and registered seat of the Certificate holder*

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Aktenzeichen / *File ref.*

1421900-4880-0039 / 152442 / FG34 / SCT

letzte Änderung / *updated* Datum / *Date*

2011-08-11 2008-04-23

Dieses Beiblatt ist Bestandteil des Zeichengenehmigungsausweises Nr. 40024069.

This supplement is part of the Certificate No. 40024069.

Optokoppler *Optocoupler*

Fertigungsstätte(n)

Place(s) of manufacture

Referenz/*Reference*

30009911

Kyushu Denshi Co., Ltd.

89 Nagasaki, Shiranui-machi,
UKI-SHI, KUMAMOTO 869-0562
JAPAN

VDE Prüf- und Zertifizierungsinstitut GmbH

VDE Testing and Certification Institute

Fachgebiet FG34

Section FG34

VDE Prüf- und Zertifizierungsinstitut

Aktenzeichen:
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Position im VDE-Ausweis Position in VDE-Certificate	Typ(en) Type(s)	Eingang Input	Ausgang Output	Rastermaß Grid [mm]	Äußere Kriechstrecke Eingang - Ausgang External creepage distance Input - Output [mm]	Äußere Luftstrecke Eingang - Ausgang External clearance Input - Output [mm]	Max. periodische Spitzenisolationsspg. Max. repetitive peak isolation voltage U_{ORM} [V peak]	Maximale Impulsisolationsspannung Maximum transient isolation voltage U_{OTM} [V peak]	Kriechstromfestigkeit Tracking resistance	Verschmutzungsgrad Pollution degree	Klimaklasse Climatic category	Betriebstemperaturbereich Operating temperature range T_{amb} [°C]	Lagertemperaturbereich Storage temperature range T_{sig} [°C]
1	PS8302L	GaAIAs IR-LED	Phototransistor	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/110/21	-55 ... +110	-55 ... +125
2	PS8302L2	GaAIAs IR-LED	Phototransistor	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/110/21	-55 ... +110	-55 ... +125
3	PS9301L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
4	PS9301L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
5	PS9303L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
6	PS9303L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
7	PS9313L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
8	PS9313L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
9	PS9317L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
10	PS9317L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
11	PS9302L	GaAIAs IR-LED	Photodetector-IC	9,7	≥ 8,0	≥ 8,0	890	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
12	PS9306L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
13	PS9306L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125

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Optokoppler Optocoupler

Position im VDE-Ausweis Position in VDE-Certificate	Typ(en) Type(s)	Eingang Input	Ausgang Output	Rastermaß Grid [mm]	Äußere Kriechstrecke Eingang - Ausgang External creepage distance Input - Output [mm]	Äußere Luftstrecke Eingang - Ausgang External clearance Input - Output [mm]	Max. periodische Spitzenisolationsspg. Max. repetitive peak isolation voltage U_{ORM} [V peak]	Maximale Impulsisolationsspannung Maximum transient isolation voltage U_{OTM} [V peak]	Kriechstromfestigkeit Tracking resistance	Verschmutzungsgrad Pollution degree	Klimaklasse Climatic category	Betriebstemperaturbereich Operating temperature range T_{amb} [°C]	Lagertemperaturbereich Storage temperature range T_{sig} [°C]
14	PS9305L	GaAIAs IR-LED	Photodetector-IC	9,7	≥ 8,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
15	PS9351L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
16	PS9351L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
17	PS9308L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
18	PS9308L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
19	PS9309L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
20	PS9309L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
21	PS9307L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/125/21	-40 ... +125	-55 ... +150
22	PS9307L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/125/21	-40 ... +125	-55 ... +150
23	PS9305L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
24	PS9324L	GaAIAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
25	PS9324L2	GaAIAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
26	PS8501	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125

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Position im VDE-Ausweis Position in VDE-Certificate	Typ(en) Type(s)	Eingang Input	Ausgang Output	Rastermaß Grid [mm]	Äußere Kriechstrecke Eingang - Ausgang External creepage distance Input - Output [mm]	Äußere Luftstrecke Eingang - Ausgang External clearance Input - Output [mm]	Max. periodische Spitzenisolationsspg. Max. repetitive peak isolation voltage U _{ORM} [V peak]	Maximale Impulsisolationsspannung Maximum transient isolation voltage U _{OTM} [V peak]	Kriechstromfestigkeit Tracking resistance	Verschmutzungsgrad Pollution degree	Klimaklasse Climatic category	Betriebstemperaturbereich Operating temperature range T _{amb} [°C]	Lagertemperaturbereich Storage temperature range T _{sig} [°C]
27	PS8501L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
28	PS8501L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
29	PS8502	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
30	PS8502L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
31	PS8502L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
32	PS9513	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
33	PS9513L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
34	PS9513L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
35	PS9587	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
36	PS9587L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
37	PS9587L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
38	PS8551L4	AlGaAs IR-LED	Photodetector-IC	10,0	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
39	PS9551L4	AlGaAs IR-LED	Photodetector-IC	10,0	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125

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40	PS9552	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
41	PS9552L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
42	PS9552L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
43	PS8501L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
44	PS8502L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
45	PS9513L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-55 ... +100	-55 ... +125
46	PS9552L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	55/100/21	-55 ... +100	-55 ... +125
47	PS9587L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
48	PS9553	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
49	PS9553L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
50	PS9553L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≥ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
51	PS9553L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
52	PS9505	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≥ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125

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53	PS9505L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
54	PS9505L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
55	PS9505L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≈ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
56	PS9506	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≈ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
57	PS9506L1	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
58	PS9506L2	AlGaAs IR-LED	Photodetector-IC	10,16	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
59	PS9506L3	AlGaAs IR-LED	Photodetector-IC	7,62	≥ 7,0	≈ 7,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125
60	PS9401-2	GaAlAs IR-LED	Photodetector-IC Phototransistor	8,8	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/100/21	-40 ... +100	-55 ... +125
61	PS9451	GaAlAs IR-LED	Photodetector-IC	8,8	≥ 8,0	≈ 8,0	1230	8000	CTI 175	2	40/085/21	-40 ... +85	-55 ... +125
62	PS9402	GaAlAs IR-LED	Photodetector-IC	8,8	≥ 8,0	≈ 8,0	1130	8000	CTI 175	2	40/110/21	-40 ... +110	-55 ... +125