

フォトカプラ

絶縁距離

概要

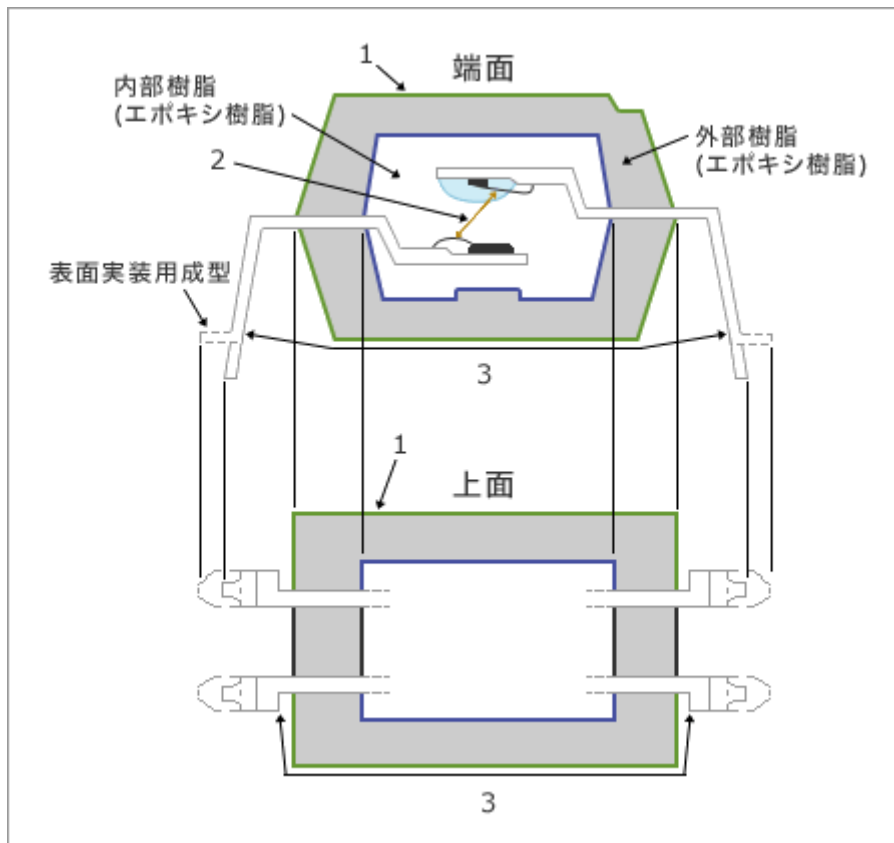
当社のフォトカプラの内部構造は、次の図のように、発光素子と受光素子との間を光透過率の高い内部樹脂で充填し、さらにその外側を遮光性の高い外部樹脂で覆った二重構造になっています。

そのため、外部からの光の影響を受けない確実な動作と、高感度（電流伝達率：CTRが大きい）とが両立しています。

内容

1. 概要.....	2
2. 16-pin DIP (Dual Inline Package).....	4
3. 8-pin DIP (Dual Inline Package).....	5
4. 4-pin DIP (Dual Inline Package).....	6
4.1 ストレート、表面実装用(L).....	6
4.2 長沿面用(L1)、長沿面表面実装用(L2).....	7
5. 6-pin SDIP (Shrink Dual Inline Package).....	8
6. 8-pin SDIP (Shrink Dual Inline Package).....	9
7. 16-pin SSOP (Shrink Small Outline Package).....	10
8. 12-pin SSOP (Shrink Small Outline Package).....	11
9. 8-pin SSOP (Shrink Small Outline Package).....	12
10. 5-pin LSSO5 (Long Creepage Shrink Small Outline Package).....	13
11. 5-pin SOP (Small Outline Package).....	14
12. 4-pin SOP (Small Outline Package).....	15
13. 4-pin LSSOP (Long Creepage Shrink Small Outline Package).....	16
14. 4-pin SSOP (Shrink Small Outline Package).....	17
15. 4-pin Mini Flat-lead.....	18
16. Revision History.....	19

1. 概要

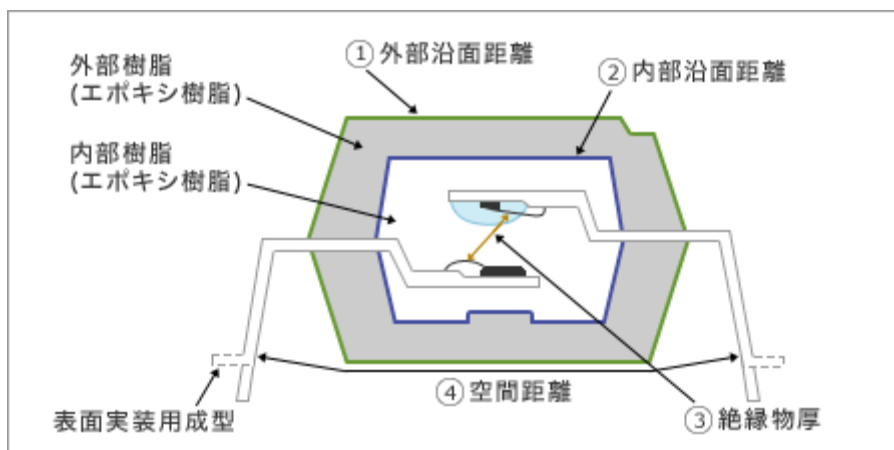


No. / 名称	意味
1. 沿面距離	パッケージ表面（図中緑色）に沿った、発光側端子と受光側端子との間の最短距離。
2. 絶縁物厚	樹脂で絶縁された発光側と受光側との間の最短距離。
3. 空間距離	樹脂外部の空間で、発光側端子と受光側端子との間が最短となる距離。端子形状により、外部沿面距離と等しくなる場合もある。

パッケージ名称	端子方向 モールド幅 (mm)	Length (mm) 長さ (mm)	Height (mm) 高さ (mm)	質量 (g)
16-pin DIP	6.5	19.8	3.6	1.02
8-pin DIP	6.5	9.25	3.6	0.55
4-pin DIP	6.5	4.6	3.6	0.26
6-pin SDIP	6.8	4.58	3.7	0.35
8-pin SDIP	6.8	5.85	3.7	0.35
16-pin SSOP	4.4	10.3	2	0.2
12-pin SSOP	4.4	5.6	2.5	0.14
8-pin SSOP	3.95	5.21	3.27	0.14
5-pin LSSO5	7.5	2.5	2.1	0.075
5-pin SOP	4.4	4	2.1	0.08
4-pin SOP	4.4	4	2.1	0.08
4-pin LSSOP	7.5	2.5	2.1	0.075
4-pin SSOP	4.4	2.7	2	0.05
4-pin mini flat-lead	4.6	2.5	2.1	0.05

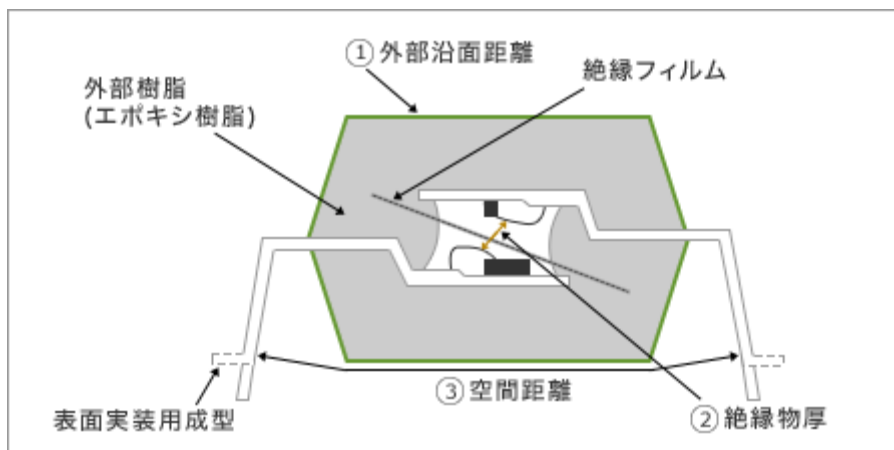
※注意：上記数値は、リードフォーミングの違いなどで、若干の差異があります。

2. 16-pin DIP (Dual Inline Package)



品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2501-4, PS2501L-4	5.0	7.0	3.5	0.3	7.0
PS2502-4, PS2502L-4	5.0	7.0	3.5	0.3	7.0
PS2505-4, PS2505L-4	5.0	7.0	3.5	0.3	7.0

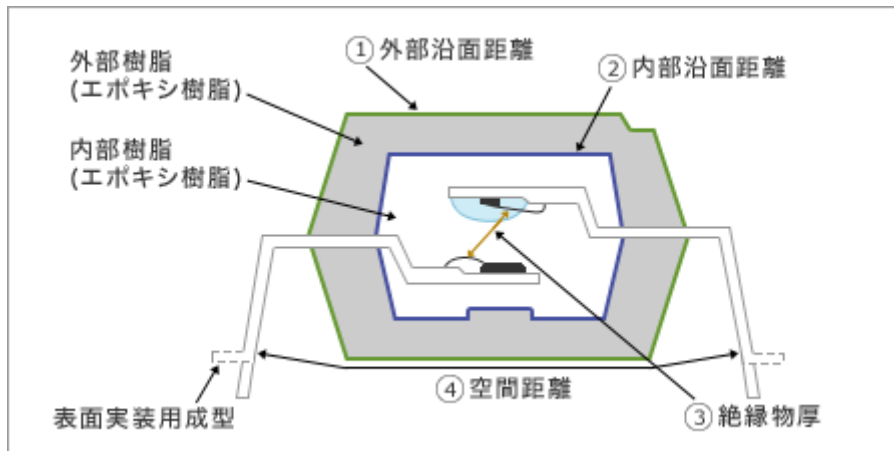
3. 8-pin DIP (Dual Inline Package)



品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
PS8501, PS8501L3	5.0	7.0	0.4	7.0
PS8501L1, PS8501L2	5.0	8.0	0.4	8.0
PS8502, PS8502L3	5.0	7.0	0.4	7.0
PS8502L1, PS8502L2	5.0	8.0	0.4	8.0
PS9505, PS9505L3	5.0	7.0	0.4	7.0
PS9505L1, PS9505L2	5.0	8.0	0.4	8.0
PS9513, PS9513L3	5.0	7.0	0.4	7.0
PS9513L1, PS9513L2	5.0	8.0	0.4	8.0
PS9587, PS9587L3	5.0	7.0	0.4	7.0
PS9587L1, PS9587L2	5.0	8.0	0.4	8.0

4. 4-pin DIP (Dual Inline Package)

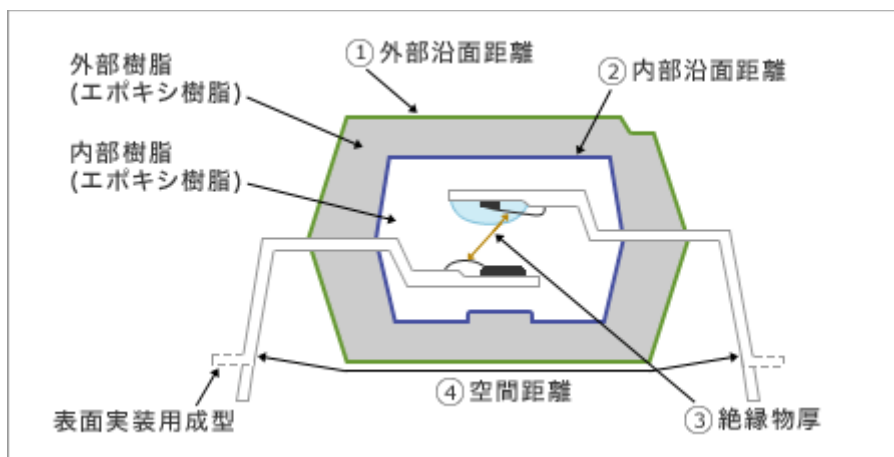
4.1 ストレート、表面実装用(L)



品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2501-1, PS2501L-1	5.0	7.0	3.5	0.3	7.0
PS2501A-1, PS2501AL-1	5.0	7.0	3.5	0.3	7.0
PS2502-1, PS2502L-1	5.0	7.0	3.5	0.3	7.0
PS2503-1, PS2503L-1	5.0	7.0	3.5	0.3	7.0
PS2505-1, PS2505L-1	5.0	7.0	3.5	0.3	7.0
PS2506-1, PS2506L-1	5.0	7.0	3.5	0.3	7.0
PS2513-1, PS2513L-1	5.0	7.0	3.5	0.3	7.0
PS2514-1, PS2514L-1	5.0	7.0	3.5	0.3	7.0
PS2533-1, PS2533L-1	5.0	7.0	3.5	0.3	7.0
PS2535-1, PS2535L-1	5.0	7.0	3.5	0.3	7.0
PS2561-1, PS2561L-1	5.0	7.0	3.5	0.3	7.0
PS2561A-1, PS2561AL-1	5.0	7.0	3.5	0.3	7.0
PS2561B-1, PS2561BL-1	5.0	7.0	3.5	0.3	7.0
PS2561D-1, PS2561DL-1	5.0	7.0	3.5	0.3	7.0

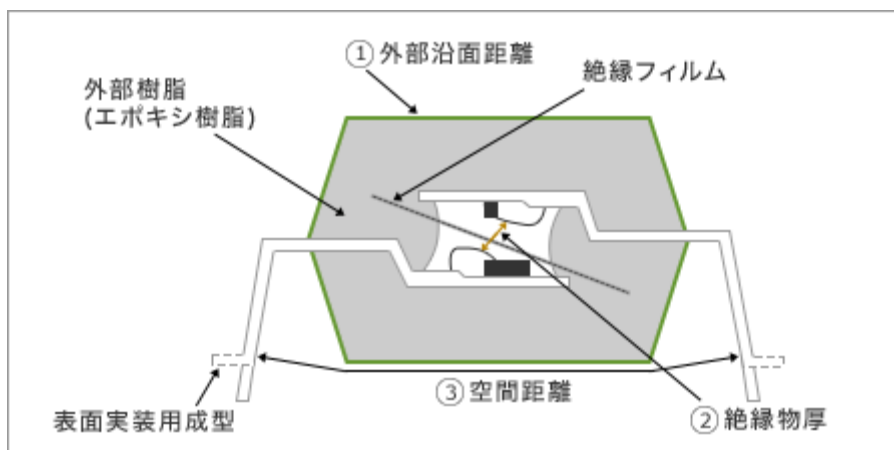
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2561F-1, PS2561FL-1	5.0	7.0	3.5	0.3	7.0
PS2562-1, PS2562L-1	5.0	7.0	3.5	0.3	7.0
PS2565-1, PS2565L-1	5.0	7.0	3.5	0.3	7.0

4.2 長沿面用(L1)、長沿面表面実装用(L2)



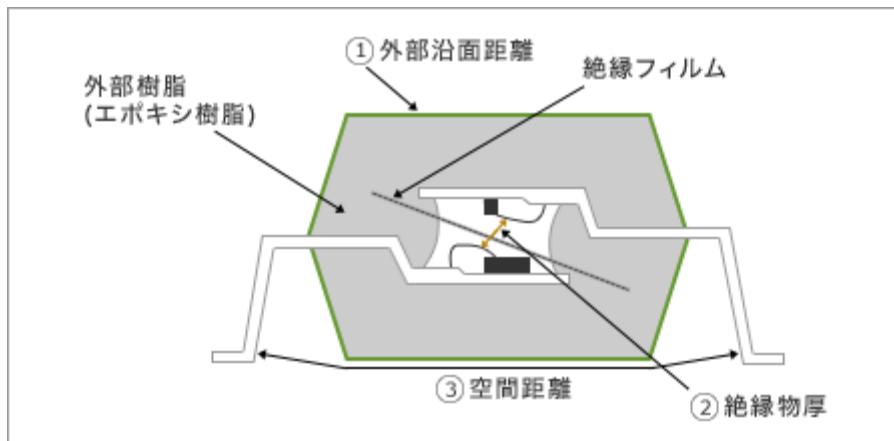
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2561L1-1, PS2561L2-1	5.0	7.0	4.0	0.4	7.0
PS2561AL1-1, PS2561AL2-1	5.0	7.0	4.0	0.4	7.0
PS2561BL1-1, PS2561BL2-1	5.0	7.0	4.0	0.4	7.0
PS2561DL1-1, PS2561DL2-1	5.0	8.0	4.0	0.4	8.0
PS2562L1-1, PS2562L2-1	5.0	7.0	4.0	0.4	7.0
PS2565L1-1, PS2565L2-1	5.0	7.0	4.0	0.4	7.0
PS2581L1, PS2581L2	5.0	8.0	4.0	0.4	8.0
PS2581AL1, PS2581AL2	5.0	8.0	4.0	0.4	8.0

5. 6-pin SDIP (Shrink Dual Inline Package)



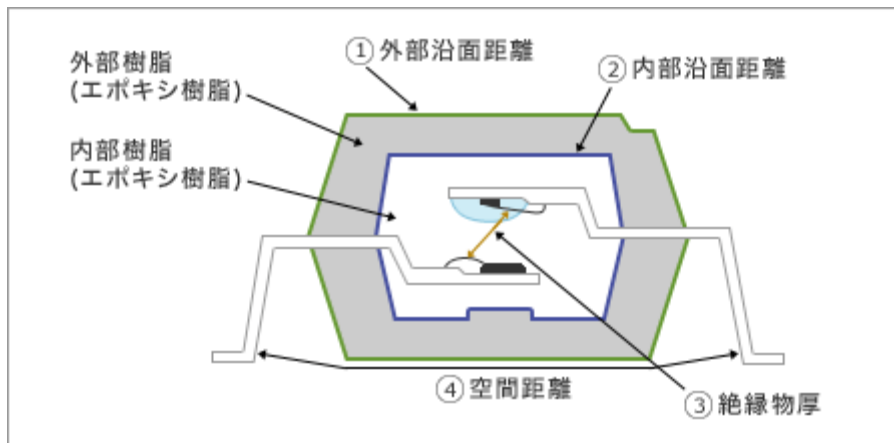
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
PS8302L	5.0	7.0	0.4	7.0
PS8302L2	5.0	8.0	0.4	8.0
PS9303L	5.0	7.0	0.4	7.0
PS9303L2	5.0	8.0	0.4	8.0
PS9306L	5.0	7.0	0.4	7.0
PS9306L2	5.0	8.0	0.4	8.0
PS9307L	5.0	7.0	0.4	7.0
PS9307L2	5.0	8.0	0.4	8.0
PS9308L	5.0	7.0	0.4	7.0
PS9308L2	5.0	8.0	0.4	8.0
PS9313L	5.0	7.0	0.4	7.0
PS9313L2	5.0	8.0	0.4	8.0
PS9317L	5.0	7.0	0.4	7.0
PS9317L2	5.0	8.0	0.4	8.0
PS9324L	5.0	7.0	0.4	7.0
PS9324L2	5.0	8.0	0.4	8.0
PS9331L	5.0	7.0	0.4	7.0
PS9331L2	5.0	8.0	0.4	8.0
PS9351L	5.0	7.0	0.4	7.0
PS9351L2	5.0	8.0	0.4	8.0

6. 8-pin SDIP (Shrink Dual Inline Package)



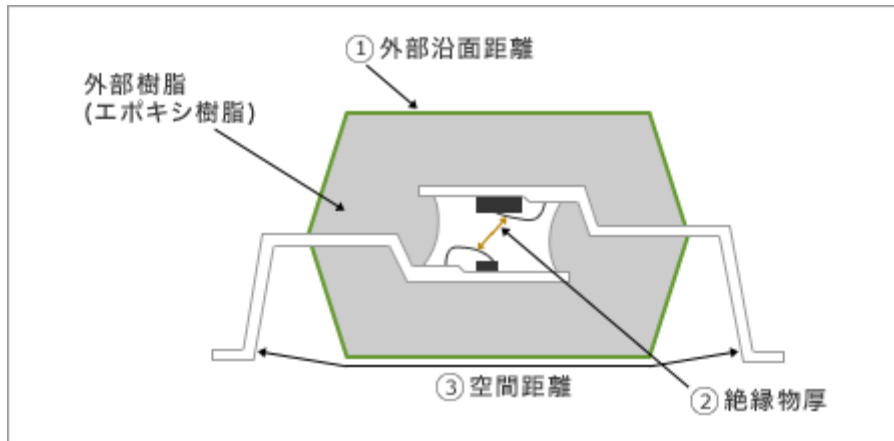
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
PS9305L	5.0	8.0	0.4	7.0
PS9305L2	5.0	8.0	0.4	8.0
PS9332L	5.0	7.0	0.4	7.0
PS9332L2	5.0	8.0	0.4	8.0

7. 16-pin SSOP (Shrink Small Outline Package)



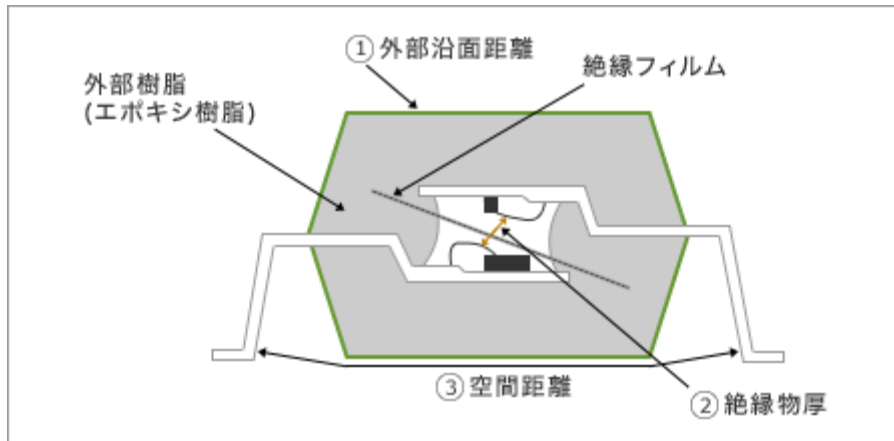
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2801C-4	2.5	4.5	2.5	0.1	4.5
PS2802-4	2.5	4.5	2.5	0.1	4.5
PS2805C-4	2.5	4.5	2.5	0.1	4.5
PS2811-4	2.5	4.5	2.5	0.1	4.5
PS2815-4	2.5	4.5	2.5	0.1	4.5
PS2833-4	2.5	4.5	2.5	0.1	4.5

8. 12-pin SSOP (Shrink Small Outline Package)



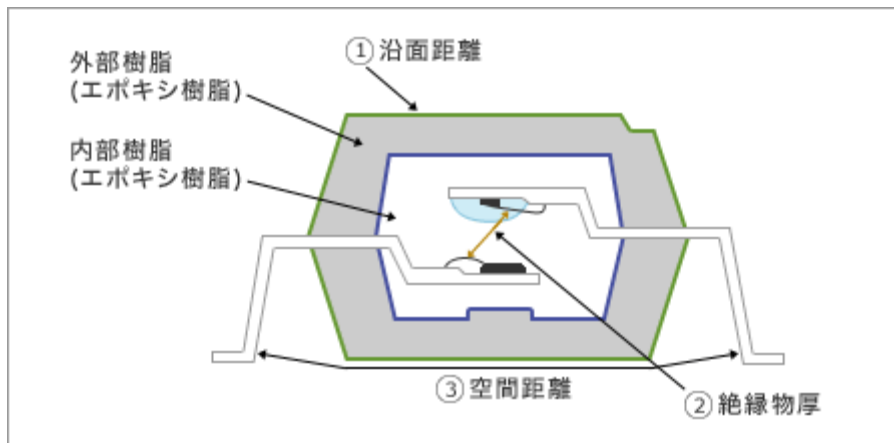
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
PS2841-4A	1.5	4.0	0.4	4.0
PS2841-4B	1.5	4.0	0.4	4.0
PS2845-4A	1.5	4.0	0.4	4.0

9. 8-pin SSOP (Shrink Small Outline Package)



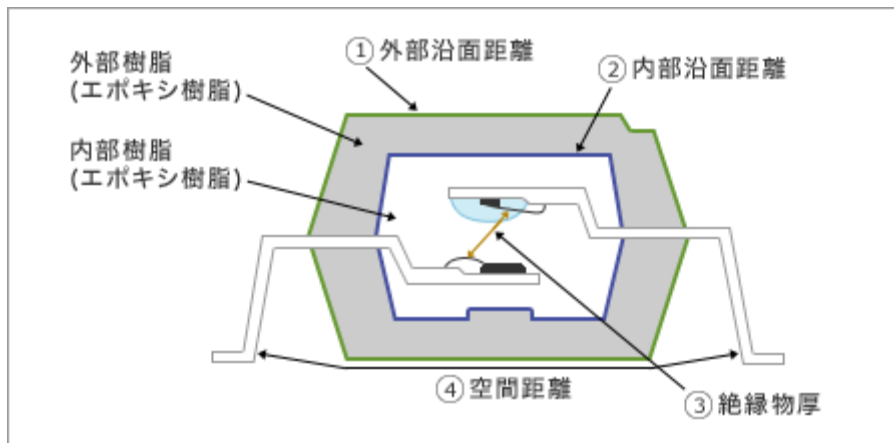
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
PS8802-1, PS8802-2	2.5	4.0	0.2	4.0
PS8821-1, PS8821-2	2.5	4.0	0.2	4.0
PS9817A-1, PS9817A-2	2.5	4.0	0.2	4.0
PS9821-1, PS9821-2	2.5	4.0	0.2	4.0
PS9822-1, PS9822-2	2.5	4.0	0.2	4.0
PS9851-1, PS9851-2	2.5	4.0	0.2	4.0

10. 5-pin LSSO5 (Long Creepage Shrink Small Outline Package)



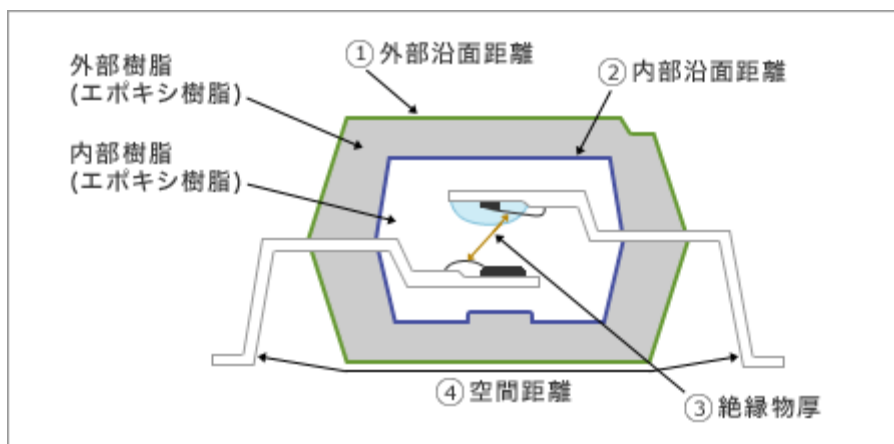
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
RV1S9213A	5.0	8.2	0.15	8.2
RV1S9260A	5.0	8.2	0.15	8.2

11. 5-pin SOP (Small Outline Package)



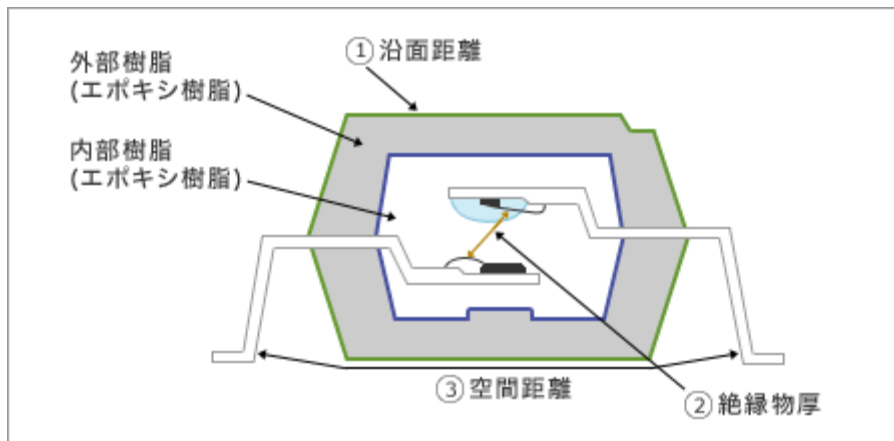
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS8101	3.75	4.2	2.5	0.2	4.2
PS9113	3.75	4.2	2.5	0.2	4.2
PS9117A	3.75	4.2	2.5	0.2	4.2
PS9121	3.75	4.2	2.5	0.2	4.2
PS9122	3.75	4.2	2.5	0.2	4.2
PS9123	3.75	4.2	2.5	0.2	4.2
PS9124	3.75	4.2	2.5	0.2	4.2
PS9151	3.75	4.2	2.5	0.2	4.2

12. 4-pin SOP (Small Outline Package)



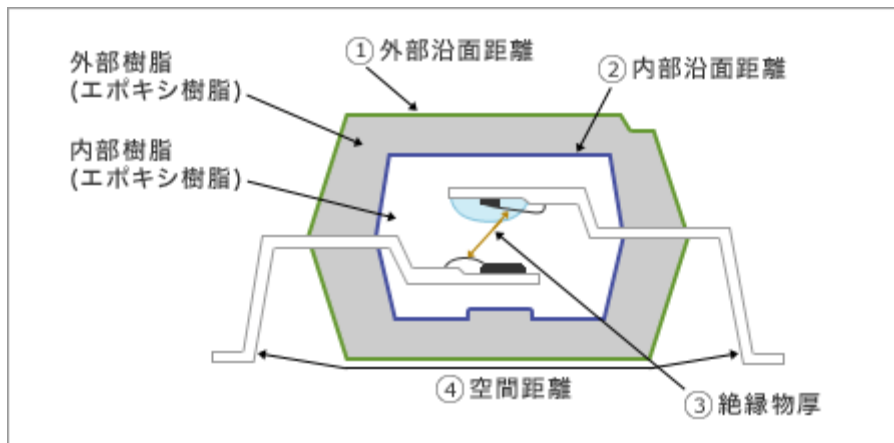
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2381-1	5.0	8.0	-	0.4	8.0
PS2701A-1	3.75	5.0	2.5	0.3	5.0
PS2702-1	3.75	5.0	2.5	0.3	5.0
PS2703-1	3.75	5.0	2.5	0.3	5.0
PS2705A-1	3.75	5.0	2.5	0.3	5.0
PS2711-1	3.75	5.0	2.5	0.3	5.0
PS2715-1	3.75	5.0	2.5	0.3	5.0
PS2733-1	2.5	5.0	2.5	0.3	5.0
PS2761B-1	3.75	5.0	-	0.4	5.0

13. 4-pin LSSOP (Long Creepage Shrink Small Outline Package)



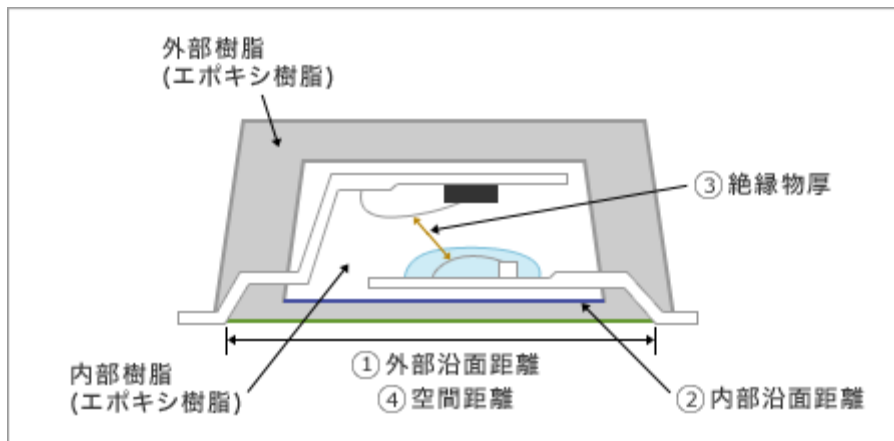
品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 絶縁物厚 (mm)	3. 空間距離 (mm)
RV1S2211A	5.0	8.2	0.15	8.2
RV1S2281A	5.0	8.2	0.15	8.2
RV1S2285A	5.0	8.2	0.15	8.2

14. 4-pin SSOP (Shrink Small Outline Package)



品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2801C-1	2.5	4.5	2.5	0.1	4.5
PS2802-1	2.5	4.5	2.5	0.1	4.5
PS2805C-1	2.5	4.5	2.5	0.1	4.5
PS2811-1	2.5	4.5	2.5	0.1	4.5
PS2815-1	2.5	4.5	2.5	0.1	4.5
PS2833-1	2.5	4.5	2.5	0.1	4.5
PS2861B-1	3.75	5.0	-	0.4	5.0

15. 4-pin Mini Flat-lead



品名	絶縁耐圧 (kVr.m.s.)	1. 外部沿面距離 (mm)	2. 内部沿面距離 (mm)	3. 絶縁物厚 (mm)	4. 空間距離 (mm)
PS2911-1	2.5	4.0	2.5	0.4	4.0
PS2913-1	2.5	4.0	2.5	0.4	4.0
PS2915-1	2.5	4.0	2.5	0.4	4.0
PS2933-1	2.5	4.0	2.5	0.4	4.0

16. Revision History

Revision	Date	Description
1.0	Oct.23.20	Initial release.

IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES (“RENESAS”) PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers skilled in the art designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only for development of an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising out of your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use of any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Rev.1.0 Mar 2020)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:
www.renesas.com/contact/

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.