

# INTERNATIONAL STANDARD

## AMENDMENT 1

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Surface mounted piezoelectric devices for frequency control and selection –  
Standard outlines and terminal lead connections –  
Part 2: Ceramic enclosures

[IEC 61837-2:2018/AMD1:2020](https://standards.iteh.ai/catalog/standards/sist/a9aac703-ed4a-4c51-b11d-015c12b4c281/iec-61837-2-2018-amd1-2020)

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67 000 electrotechnical terminology entries in English and French extracted from the Terms and definitions clause of IEC publications issued between 2002 and 2015. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.

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INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 31.140

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## FOREWORD

This amendment has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

The text of this amendment is based on the following documents:

|             |                  |
|-------------|------------------|
| FDIS        | Report on voting |
| 49/1338/CDV | 49/1347/RVC      |

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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## 8 Designation of ceramic enclosures

*Replace Table 1 with the following:*

**Table 1 – Designation of ceramic enclosures**

| No. | Type                 | Old type      | Sheet No. | Description                                    |
|-----|----------------------|---------------|-----------|--|
| 1   | QCC-18/1809A         | QCC-18/01     | Sheet 1   | Ceramic, welded, eighteen leadless SMD outline |
| 2   | QCC-12/1407A         |               | Sheet 2   | Ceramic, welded, twelve leadless SMD outline   |
| 3   | DCC-4/1206A          | DCC-4/01      | Sheet 3   | Ceramic, four leadless SMD outline             |
| 4   | DCC-2/1206A          |               | Sheet 4   | Ceramic, two leadless SMD outline              |
| 5   | QCC-10/9272A         |               | Sheet 5   | Ceramic, welded, ten leadless SMD outline      |
| 6   | DCC-4/9070A          |               | Sheet 6   | Ceramic, welded, four leadless SMD outline     |
| 7   | DCC-4/8045B          | DCC-04/02, 03 | Sheet 7   | Ceramic, welded, four leadless SMD outline     |
| 8   | DCC-2/8045B          |               | Sheet 8   | Ceramic, welded, two leadless SMD outline      |
| 9   | DCC-6/7834B          |               | Sheet 9   | Ceramic, welded, six leadless SMD outline      |
| 10  | DCC-6/7050A          |               | Sheet 10  | Ceramic, welded, six leadless SMD outline      |
| 11  | DCC-4/7050A          | DCC-4/08      | Sheet 11  | Ceramic, welded, four leadless SMD outline     |
| 12  | DCC-4/7050B          | DCC-4/04, 05  | Sheet 12  | Ceramic, welded, four leadless SMD outline     |
| 13  | QCC-10/7050A         |               | Sheet 13  | Ceramic, welded, ten leadless SMD outline      |
| 14  | QCC-6/7050A          | QCC-6/01, 02  | Sheet 14  | Ceramic, welded, six leadless SMD outline      |
| 15  | DCC-6/6035A          | DCC-4/06, 07  | Sheet 15  | Ceramic, welded, six leadless SMD outline      |
| 16  | DCC-4/6035C          |               | Sheet 16  | Ceramic, welded, four leadless SMD outline     |
| 17  | DCC-2/6035C          |               | Sheet 17  | Ceramic, welded, two leadless SMD outline      |
| 18  | QCC-8/5050A          | QCC-8/02      | Sheet 18  | Ceramic, welded, eight leadless SMD outline    |
| 19  | QCC-12/5045A         | QCC-12/02     | Sheet 19  | Ceramic, welded, twelve leadless SMD outline   |
| 20  | QCC-8/5045A          |               | Sheet 20  | Ceramic, welded, eight leadless SMD outline    |
| 21  | DCC-6/5032A          |               | Sheet 21  | Ceramic, welded, six leadless SMD outline      |
| 22  | DCC-4/5032A          |               | Sheet 22  | Ceramic, welded, four leadless SMD outline     |
| 23  | DCC-4/5032C          |               | Sheet 23  | Ceramic, welded, four leadless SMD outline     |
| 24  | DCC-2/5032B          | DCC-2/01      | Sheet 24  | Ceramic, welded, two leadless SMD outline      |
| 25  | DCC-2/4818C          |               | Sheet 25  | Ceramic, welded, two leadless SMD outline      |
| 26  | DCC-2/4115C          |               | Sheet 26  | Ceramic, welded, two leadless SMD outline      |
| 27  | DCC-4/4025C          | DCC-6/01      | Sheet 27  | Ceramic, welded, four leadless SMD outline     |
| 28  | QCC-8/3838A          |               | Sheet 28  | Ceramic, welded, eight leadless SMD outline    |
| 29  | DCC-6/3838A          |               | Sheet 29  | Ceramic, welded, six leadless SMD outline      |
| 30  | DCC-6/3225A          |               | Sheet 30  | Ceramic, welded, six leadless SMD outline      |
| 31  | DCC-4/3225C          |               | Sheet 31  | Ceramic, welded, four leadless SMD outline     |
| 32  | DCC-4/3215C          |               | Sheet 32  | Ceramic, welded, four leadless SMD outline     |
| 33  | DCC-2/3215C          |               | Sheet 33  | Ceramic, welded, two leadless SMD outline      |
| 34  | QCC-8/3030B          |               | Sheet 34  | Ceramic, welded, eight leadless SMD outline    |
| 35  | DCC-6/3030A          |               | Sheet 35  | Ceramic, welded, six leadless SMD outline      |
| 36  | DCC-6/2520A          |               | Sheet 36  | Ceramic, welded, six leadless SMD outline      |
| 37  | DCC-4/2520C/01,02,03 |               | Sheet 37  | Ceramic, welded, four leadless SMD outline     |
| 38  | DCC-4/2020C          |               | Sheet 38  | Ceramic, welded, six leadless SMD outline      |
| 39  | DCC-6/2016A          |               | Sheet 39  | Ceramic, welded, six leadless SMD outline      |
| 40  | DCC-4/2016C/01,02,03 |               | Sheet 40  | Ceramic, welded, four leadless SMD outline     |
| 41  | DCC-2/2012C          |               | Sheet 41  | Ceramic, welded, two leadless SMD outline      |
| 42  | DCC-4/1612C/01,02    |               | Sheet 42  | Ceramic, welded, four leadless SMD outline     |
| 43  | DCC-2/1612C          |               | Sheet 43  | Ceramic, welded, two leadless SMD outline      |
| 44  | DCC-2/1610C          |               | Sheet 44  | Ceramic, welded, two leadless SMD outline      |
| 45  | DCC-4/1210C          |               | Sheet 45  | Ceramic, welded, four leadless SMD outline     |

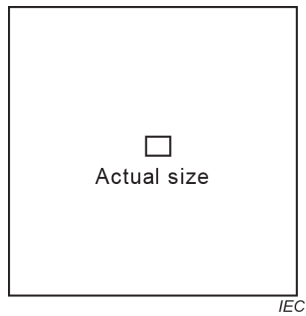
| No. | Type               | Old type | Sheet No. | Description                                 |
|-----|--------------------|----------|-----------|---|
| 46  | DCC-8/3225A        |          | Sheet 46  | Ceramic, welded, eight leadless SMD outline |
| 47  | DCC-4/1008C/0,1,02 |          | Sheet 47  | Ceramic, welded, four leadless SMD outline  |

*Add two sheets, Type DCC-8/3225A and Type DCC-4/1008C:*

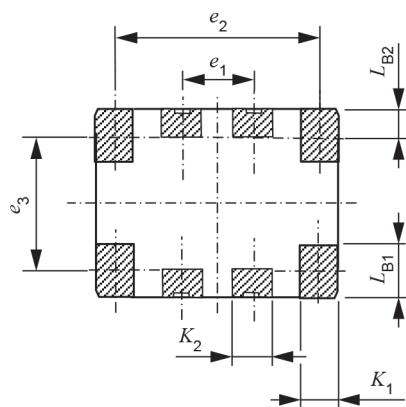
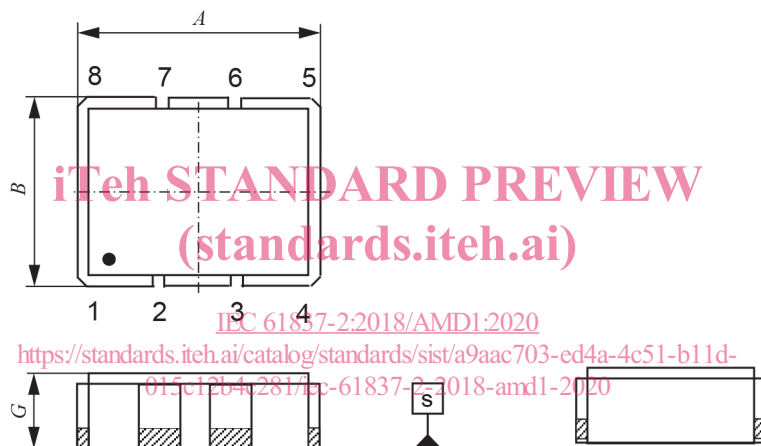
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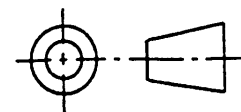
| Ref.     | Dimensions (mm) |       |      | Notes |
|----------|-----------------|-------|------|-------|
|          | Min.            | Nom.  | Max. |       |
| A        | —               | (3,2) | 3,40 |       |
| B        | —               | (2,5) | 2,70 |       |
| G        | —               | —     | 1,00 |       |
| $K_1$    | 0,30            | —     | 0,70 |       |
| $K_2$    | 0,35            | —     | 0,75 |       |
| $L_{B1}$ | 0,50            | —     | 0,90 |       |
| $L_{B2}$ | 0,15            | —     | 0,55 |       |
| $e_1$    | —               | 0,95  | —    |       |
| $e_2$    | —               | 2,70  | —    |       |
| $e_3$    | —               | 1,80  | —    |       |
| y        | —               | —     | 0,10 |       |



IEC

Ceramic, welded, eight leadless SMD outline-  
 Type DCC-8/3225A

Scale  
 10: 1



Sheet 46

**Terminal land connections of Type DCC-8/3225A**

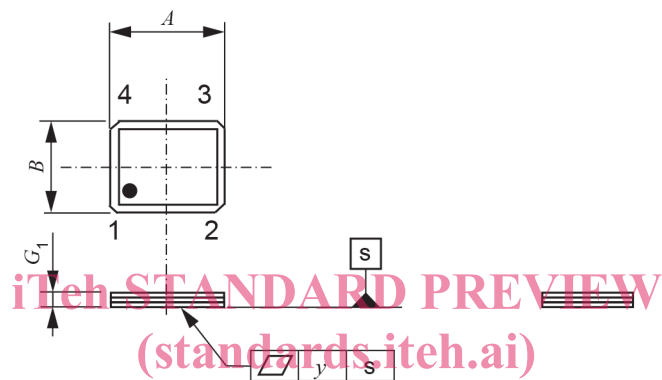
| No. | Crystal unit | Crystal oscillator | Crystal filter | SAW devices |
|-----|--------------|--------------------|----------------|-------------|
| 1   |              | Output Enable      |                |             |
| 2   |              | INT                |                |             |
| 3   |              | NC                 |                |             |
| 4   |              | Output             |                |             |
| 5   |              | Ground             |                |             |
| 6   |              | SCL                |                |             |
| 7   |              | SDA                |                |             |
| 8   |              | DC supply          |                |             |

<https://standards.iteh.ai/catalog/standards/sist/a9aac703-ed4a-4c51-b11d-015c12b4c281/iec-61837-2-2018-amd1-2020>  
 IEC 61837-2:2018/AMD1:2020

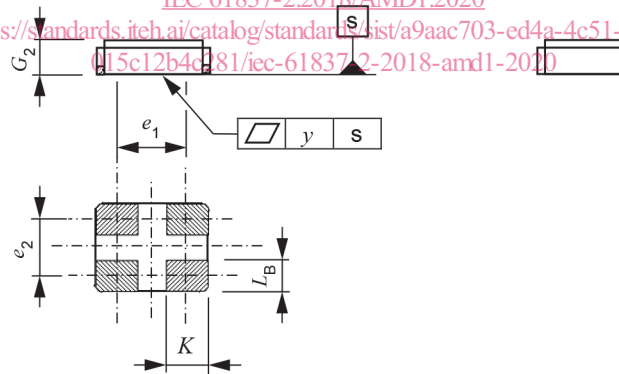


Actual size omitted

| Ref.  | Dimensions (mm) |       |      | Notes |
|-------|-----------------|-------|------|-------|
|       | Min.            | Nom.  | Max. |       |
| A     | —               | (1,0) | 1,2  |       |
| B     | —               | (0,8) | 1,0  |       |
| $G_1$ | —               | —     | 0,13 | /01   |
| $G_2$ | —               | —     | 0,30 | /02   |
| K     | 0,20            | —     | 0,60 |       |
| $L_B$ | 0,10            | —     | 0,50 |       |
| $e_1$ | —               | 0,60  | —    |       |
| $e_2$ | —               | 0,50  | —    |       |
| y     | —               | —     | 0,1  |       |



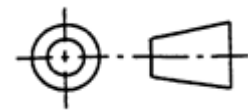
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<https://standards.iteh.ai/catalog/standards/sist/a9aac703-ed4a-4c51-b11d-015c12b4c881/iec-61837-2-2018-amd1-2020>



IEC

Ceramic, welded, four leadless SMD outline-  
 Type DCC-4/1008C/01,02

Scale  
 15: 1



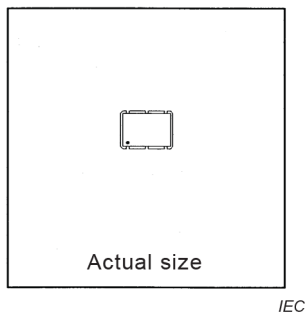
Sheet 47

**Terminal land connections of Type DCC-4/1008C/01,02**

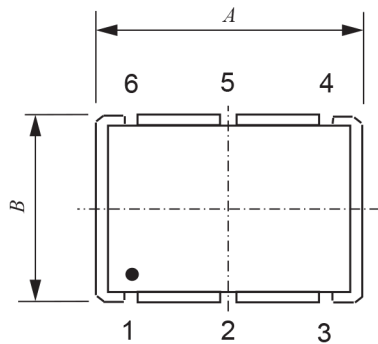
| No. | Crystal unit | Crystal oscillator | Crystal filter | SAW devices |
|-----|--------------|--------------------|----------------|-------------|
| 1   | Terminal 1   |                    |                |             |
| 2   | Ground       |                    |                |             |
| 3   | Terminal 2   |                    |                |             |
| 4   | NC           |                    |                |             |

*Replace eight types with the following new sheets, Type DCC-6/7050A, Type DCC-4/7050A, Type DCC-6/5032A, Type DCC-4/5032A, Type DCC-6/3225A, Type DCC-4/3225C, Type DCC-4/2016C, Type and DCC-4/1612C:*

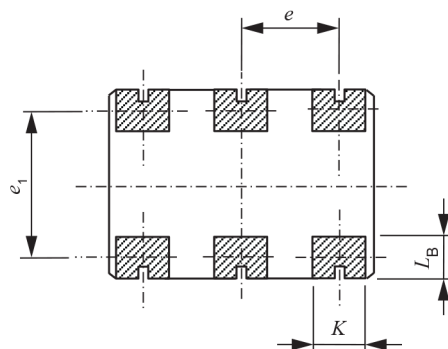
<https://standards.iteh.ai/catalog/standards/sist/a9aac703-ed4a-4c51-b11d-015c12b4c281/iec-61837-2-2018-amd1-2020>



| Ref.                 | Dimensions (mm) |       |      | Notes |
|----------------------|-----------------|-------|------|-------|
|                      | Min.            | Nom.  | Max. |       |
| <i>A</i>             | —               | (7,0) | 7,30 |       |
| <i>B</i>             | —               | (5,0) | 5,30 |       |
| <i>G</i>             | —               | —     | 2,00 |       |
| <i>K</i>             | 1,10            | —     | 1,70 |       |
| <i>L<sub>B</sub></i> | 0,80            | —     | 1,40 |       |
| <i>e</i>             | —               | 2,54  | —    |       |
| <i>e<sub>1</sub></i> | —               | 3,90  | —    |       |
| <i>y</i>             | —               | —     | 0,10 |       |



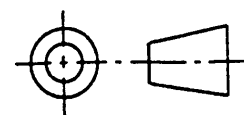
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IEC

Ceramic, welded, six leadless SMD outline –  
 Type DCC-6/7050A

Scale  
 15: 1



Sheet 10