



BSI Standards Publication

Surface mounted piezoelectric devices for frequency control and selection - Standard outlines and terminal lead connections

Part 2: Ceramic enclosures

National foreword

This British Standard is the UK implementation of EN IEC 61837-2:2018+A1:2020. It is identical to IEC 61837-2:2018, incorporating amendment 1:2020. It supersedes BS EN IEC 61837-2:2018, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee EPL/49, Piezoelectric devices for frequency control and selection.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2018.

Amendments/corrigenda issued since publication

Date	Text affected
30 November 2020	Implementation of IEC amendment 1:2020 with CENELEC endorsement A1:2020

English Version

Surface mounted piezoelectric devices for frequency control and
selection - Standard outlines and terminal lead connections -
Part 2: Ceramic enclosures
(IEC 61837-2:2018)

Dispositifs piézoélectriques à montage en surface pour la
commande et le choix de la fréquence - Encombrements
normalisés et connexions des sorties - Partie 2: Enveloppes
en céramique
(IEC 61837-2:2018)

Oberflächenmontierbare piezoelektrische Bauteile zur
Frequenzstabilisierung und -selektion - Norm-
Gehäusemaße und Anschlüsse - Teil 2: Keramikgehäuse
(IEC 61837-2:2018)

This European Standard was approved by CENELEC on 2018-06-12. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 49/1252/CDV, future edition 3 of IEC 61837-2, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61837-2:2018.

The following dates are fixed:

- latest date by which the document has to be (dop) 2019-03-12
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2021-06-12
standards conflicting with the
document have to be withdrawn

This document supersedes EN 61837-2:2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61837-2:2018 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60122-3:2010	NOTE	Harmonized as EN 60122-3:2010 (not modified).
IEC 60191-6:2009	NOTE	Harmonized as EN 60191-6:2009 (not modified).
IEC 60368-1:2000	NOTE	Harmonized as EN 60368-1:2000 (not modified).
IEC 60368-2-2:1996	NOTE	Harmonized as EN 60368-2-2:1999 (not modified).
IEC 60368-3:2010	NOTE	Harmonized as EN 60368-3:2010 (not modified).
IEC 60679-1:2017	NOTE	Harmonized as EN 60679-1:2017 (not modified).
IEC 60679-3:2012	NOTE	Harmonized as EN 60679-3:2013 (not modified).
IEC 60862-1:2015	NOTE	Harmonized as EN 60862-1:2015 (not modified).
IEC 60862-2:2012	NOTE	Harmonized as EN 60862-2:2012 (not modified).
IEC 60862-3:2003	NOTE	Harmonized as EN 60862-3:2003 (not modified).
IEC 61019-1:2004	NOTE	Harmonized as EN 61019-1:2005 (not modified).
IEC 61019-2:2005	NOTE	Harmonized as EN 61019-2:2005 (not modified).
ISO 1101:2017	NOTE	Harmonized as EN ISO 1101:2017 (not modified).

Foreword to amendment A1

The text of document 49/1338/CDV, future IEC 61837-2/A1, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61837-2:2018/A1:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-07-29
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-10-29

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61837-2:2018/A1:2020 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61240	2016	Piezoelectric devices - Preparation of outline drawings of surface-mounted devices (SMD) for frequency control and selection - General rules	EN 61240	2017

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SURFACE MOUNTED PIEZOELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION – STANDARD OUTLINES AND TERMINAL LEAD CONNECTIONS –

Part 2: Ceramic enclosures

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61837-2 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This third edition cancels and replaces the second edition published in 2011 and Amendment 1:2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) revision of the figures to match the notation of the drawings of IEC 61240:2016;
- b) addition of 7 enclosures as follows: DCC-6/5032A, DCC-6/3225A, DCC-4/3215C, DCC-6/2016A, DCC-2/2012C, DCC-2/1610C, DCC-4/1210C.

As a result, this third edition contains a total of 45 enclosure types, which are listed in Table 1.

This International Standard is to be read in conjunction with IEC 61240:2016.

The text of this International Standard is based on the following documents:

CDV	Report on voting
49/1252/CDV	49/1276/RVC

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61837 series, published under the general title *Surface mounted piezoelectric devices for frequency control and selection – Standard outlines and terminal lead connections*, can be found on the IEC website.

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

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

A bilingual version of this publication may be issued at a later date.

SURFACE MOUNTED PIEZOELECTRIC DEVICES FOR FREQUENCY CONTROL AND SELECTION – STANDARD OUTLINES AND TERMINAL LEAD CONNECTIONS –

Part 2: Ceramic enclosures

1 Scope

This part of IEC 61837 deals with standard outlines and terminal lead connections as they apply to surface-mounted devices (SMD) for frequency control and selection in ceramic enclosures, and is based on IEC 61240:2016.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61240:2016, *Piezoelectric devices – Preparation of outline drawings of surface-mounted devices (SMD) for frequency control and selection – General rules*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Configuration of enclosures

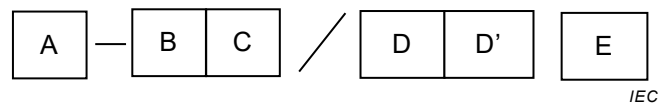
The enclosures of the surface-mounted devices are made of ceramic materials with the terminals of deposited metal film (leadless type) based on a descriptive designation system for semiconductors – devices packages.

The configuration symbols are shown as follows:

- DCC (dual chip carrier);
- QCC (quad chip carrier).

5 Designation of types

The designation of types is shown on four parts as follows:



A: Configuration symbol of enclosures:

- DCC (dual chip carrier);
- QCC (quad chip carrier).

B: Structure of terminal leads: leadless type has no mark.

C: Number of terminal leads

D: Serial number of both figures

E: Arrangement of terminal land:

In the case of DCC types:

- A (arrangement in the width direction side or the width direction side and the corner);
- B (arrangement in the length direction side or the length direction side and the corner);
- C (arrangement in the corner only).

In the case of QCC types:

- A (arrangement in the side only);
- B (arrangement in the side and the corner).

6 Ceramic enclosure dimensions

The dimensions given in this document apply to all completed SMD-devices for frequency control and selection. Only those dimensions which meet the requirements of IEC 61240 are given.

7 Lead connections

Recommendations for the lead connections of all completed SMD-devices for frequency control and selection are given in the following individual sheets. Lead connections shall always be given in the detail specification.

8 Designation of ceramic enclosures

Table 1 is a list which includes all new enclosure types with their sheet numbers and brief descriptions. Old enclosure names are also listed as references.

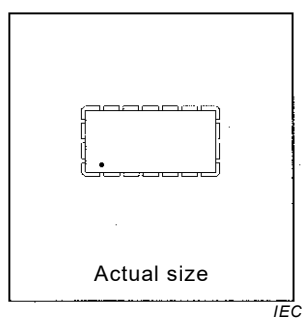
A1

Table 1 – Designation of ceramic enclosures

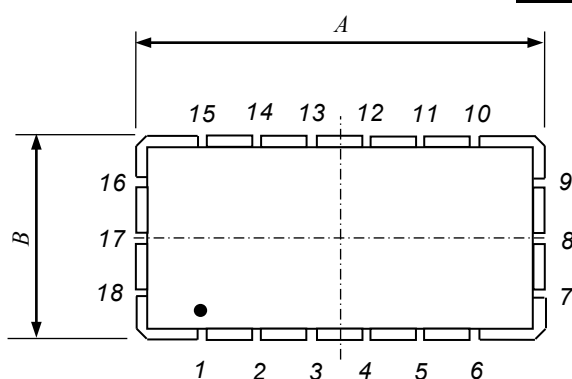
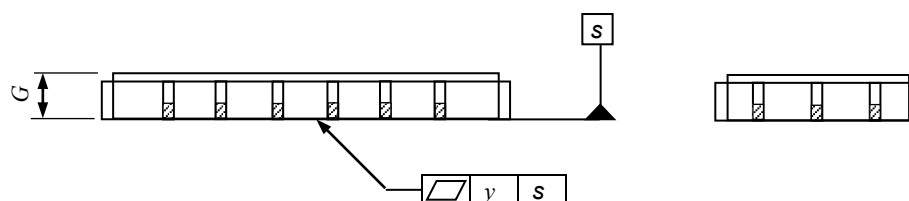
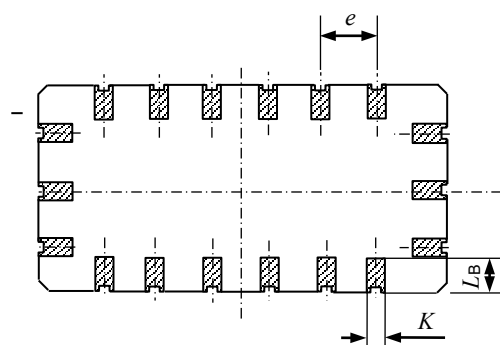
No.	Type	Old type	Sheet No.	Description
1	QCC-18/1809A	QCC-18/01	Sheet 1	Ceramic, welded, eighteen leadless SMD outline
2	QCC-12/1407A		Sheet 2	Ceramic, welded, twelve leadless SMD outline
3	DCC-4/1206A	DCC-4/01	Sheet 3	Ceramic, four leadless SMD outline
4	DCC-2/1206A		Sheet 4	Ceramic, two leadless SMD 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





Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(18,0)	18,30	
<i>B</i>	–	(9,0)	9,30	
<i>G</i>	–	–	2,00	
<i>K</i>	0,50	–	1,10	
<i>L_B</i>	1,20	–	1,80	Note
<i>e</i>	–	2,54	–	
<i>y</i>	–	–	0,10	

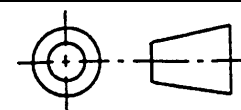


IEC

NOTE Dimension L_B max. can be increased to 2,10 mm for lead 1 to identify the orientation.

Ceramic, welded, eighteen leadless SMD outline –
Type QCC-18/1809A

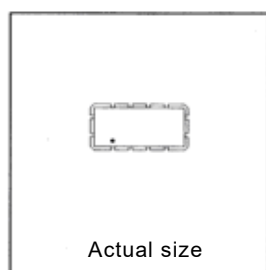
Scale
3: 1



Sheet 1

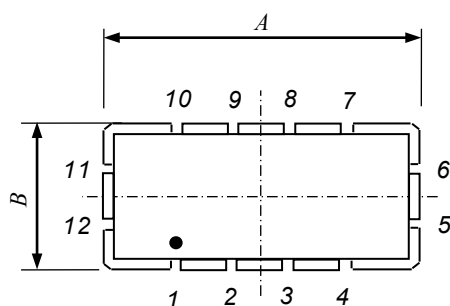
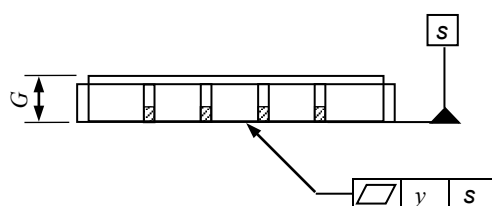
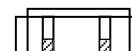
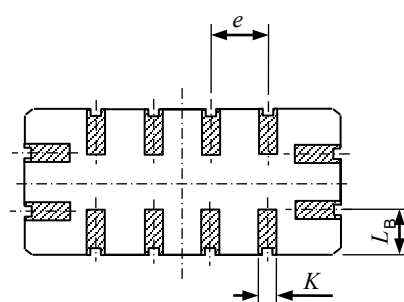
Terminal land connections of Type QCC-18/1809A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1				Ground
2				Option
3				Option
4				Option
5				Option
6				Ground
7				Input/Output
8				Ground
9				Input/Output /Ground
10				Ground
11				Option
12				Option
13				Option
14				Option
15				Ground
16				Output/Input
17				Ground
18				Output/Input /Ground



IEC

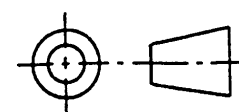
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(14,0)	14,30	
<i>B</i>	–	(6,5)	6,80	
<i>G</i>	–	–	2,00	
<i>K</i>	0,50	–	1,10	
<i>L_B</i>	1,70	–	2,30	
<i>e</i>	–	2,54	–	
<i>y</i>	–	–	0,10	



IEC

Ceramic, welded, twelve leadless SMD outline –
Type QCC-12/1407A

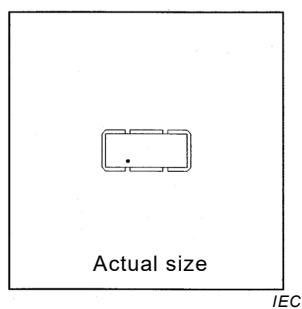
Scale
3: 1



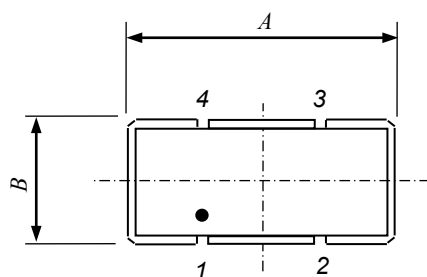
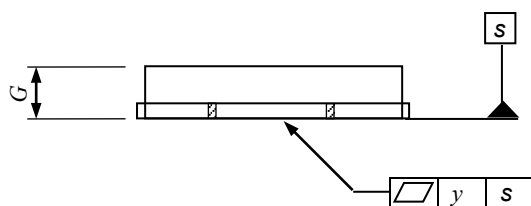
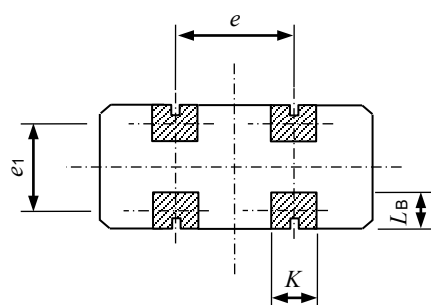
Sheet 2

Terminal land connections of Type QCC-12/1407A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1				Option
2				Option
3				Ground
4				Option
5				Output/Input
6				Output/Input /Ground
7				Option
8				Ground
9				Option
10				Option
11				Input/Output
12				Input/Output /Ground



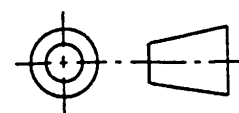
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(12,0)	12,30	
<i>B</i>	–	(5,5)	5,80	
<i>G</i>	–	–	2,30	
<i>K</i>	1,80	–	2,20	
<i>L_B</i>	1,30	–	1,90	
<i>e</i>	–	5,08	–	
<i>e₁</i>	–	3,90	–	
<i>y</i>	–	–	0,10	



IEC

Ceramic, welded, four leadless SMD outline –
Type DCC-4/1206A

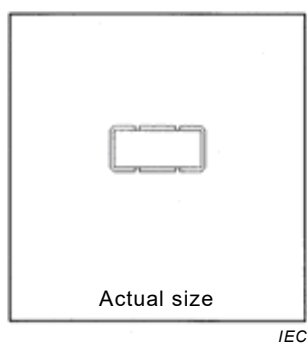
Scale
3: 1



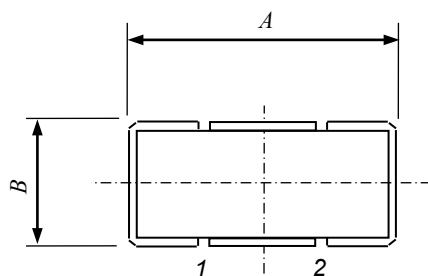
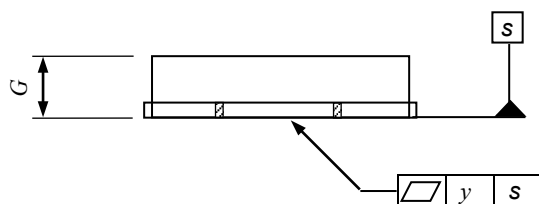
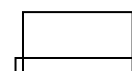
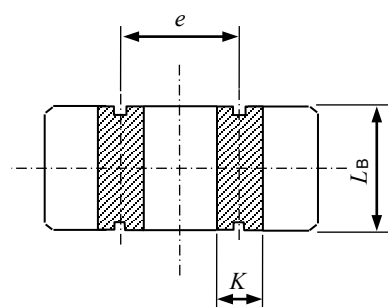
Sheet 3

Terminal land connections of Type DCC-4/1206A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1	Terminal 1	Control voltage		
2	NC	Ground		
3	Terminal 2	Output		
4	NC	DC supply		



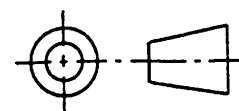
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(12,0)	12,30	
<i>B</i>	–	(5,5)	5,80	
<i>G</i>	–	–	2,70	
<i>K</i>	1,60	–	2,20	
<i>L_B</i>	5,20	–	5,80	
<i>e</i>	–	5,08	–	
<i>y</i>	–	–	0,10	



IEC

Ceramic, welded, two leadless SMD outline –
Type DCC-2/1206A

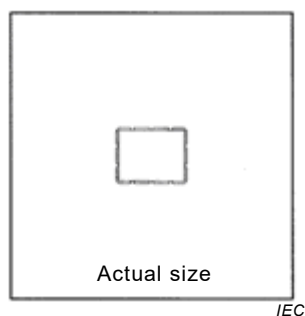
Scale
3: 1



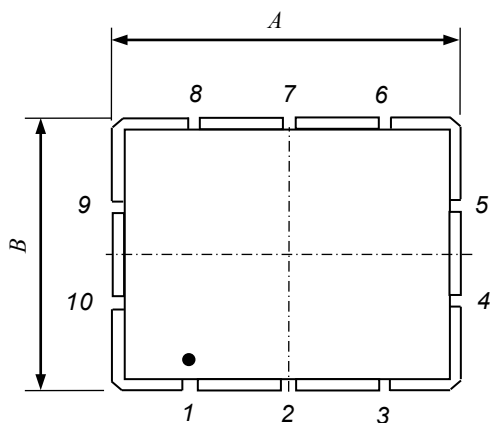
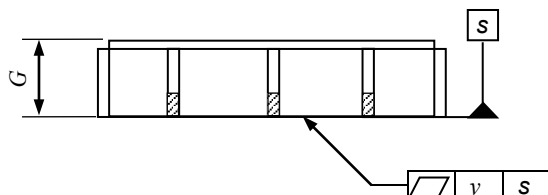
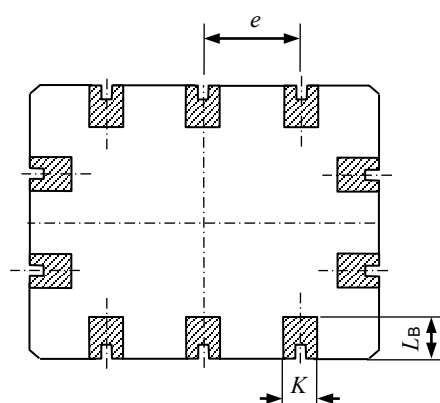
Sheet 4

Terminal land connections of Type DCC-2/1206A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1	Terminal 1			
2	Terminal 2			



Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(9,2)	9,50	
<i>B</i>	–	(7,2)	7,50	
<i>G</i>	–	–	2,00	
<i>K</i>	0,60	–	1,20	
<i>L_B</i>	0,80	–	1,40	Note
<i>e</i>	–	2,54	–	
<i>y</i>	–	–	0,10	

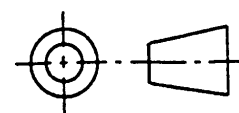


IEC

NOTE Dimension *L_B* max. can be increased to 2,00 mm for lead 1 to identify the orientation.

Ceramic, welded, ten leadless SMD outline –
Type QCC-10/9272A

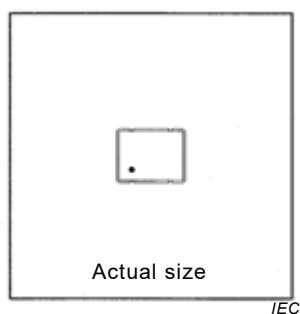
Scale
5: 1



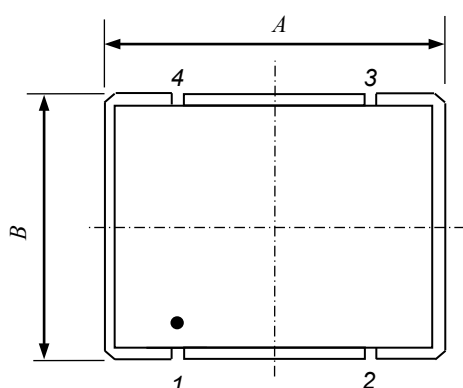
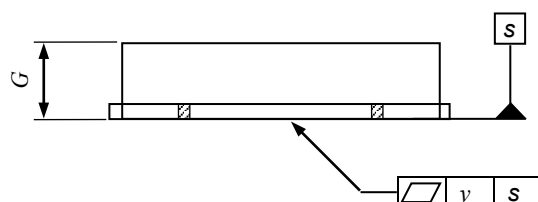
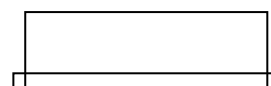
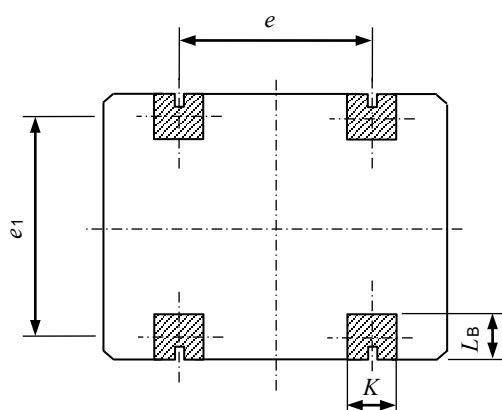
Sheet 5

Terminal land connections of Type QCC-10/9272A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1				Input/Output /Ground
2				Input/Output
3				Ground
4				Ground
5				Ground
6				Output/Input /Ground
7				Output/Input
8				Option
9				Ground
10				Ground



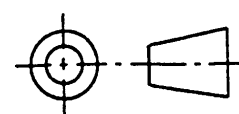
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(9,0)	9,30	
<i>B</i>	–	(7,0)	7,30	
<i>G</i>	–	–	2,00	
<i>K</i>	1,10	–	1,70	
<i>L_B</i>	0,90	–	1,50	
<i>e</i>	–	5,08	–	
<i>e₁</i>	–	5,80	–	
<i>y</i>	–	–	0,10	



IEC

Ceramic, welded, four leadless SMD outline –
Type DCC-4/9070A

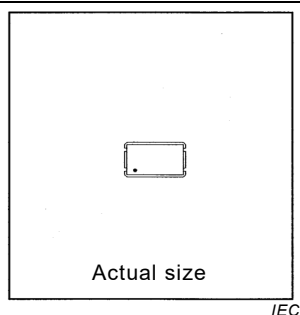
Scale
5: 1



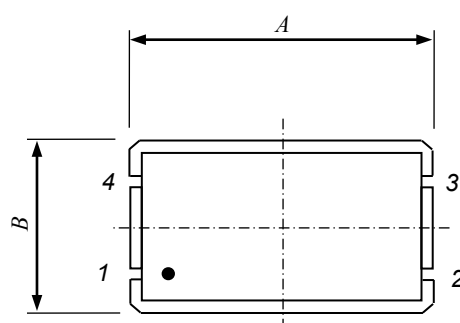
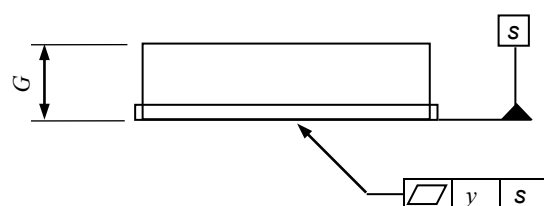
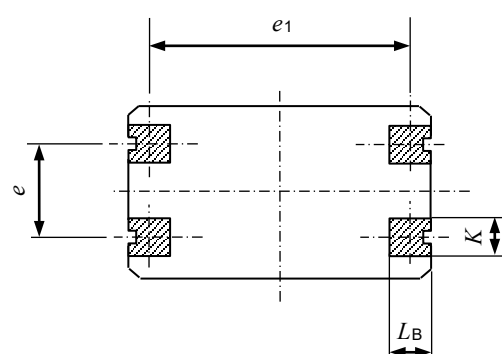
Sheet 6

Terminal land connections of Type DCC-4/9070A

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1		Control voltage		
2		Ground		
3		Output		
4		DC supply		



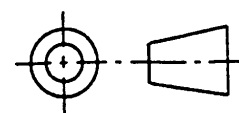
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	–	(8,0)	8,30	
<i>B</i>	–	(4,5)	4,80	
<i>G</i>	–	–	2,00	
<i>K</i>	0,70	–	1,30	
<i>L_B</i>	0,80	–	1,40	
<i>e</i>	–	2,54	–	
<i>e₁</i>	–	6,90	–	
<i>y</i>	–	–	0,10	



IEC

Ceramic, welded, four leadless SMD outline –
Type DCC-4/8045B

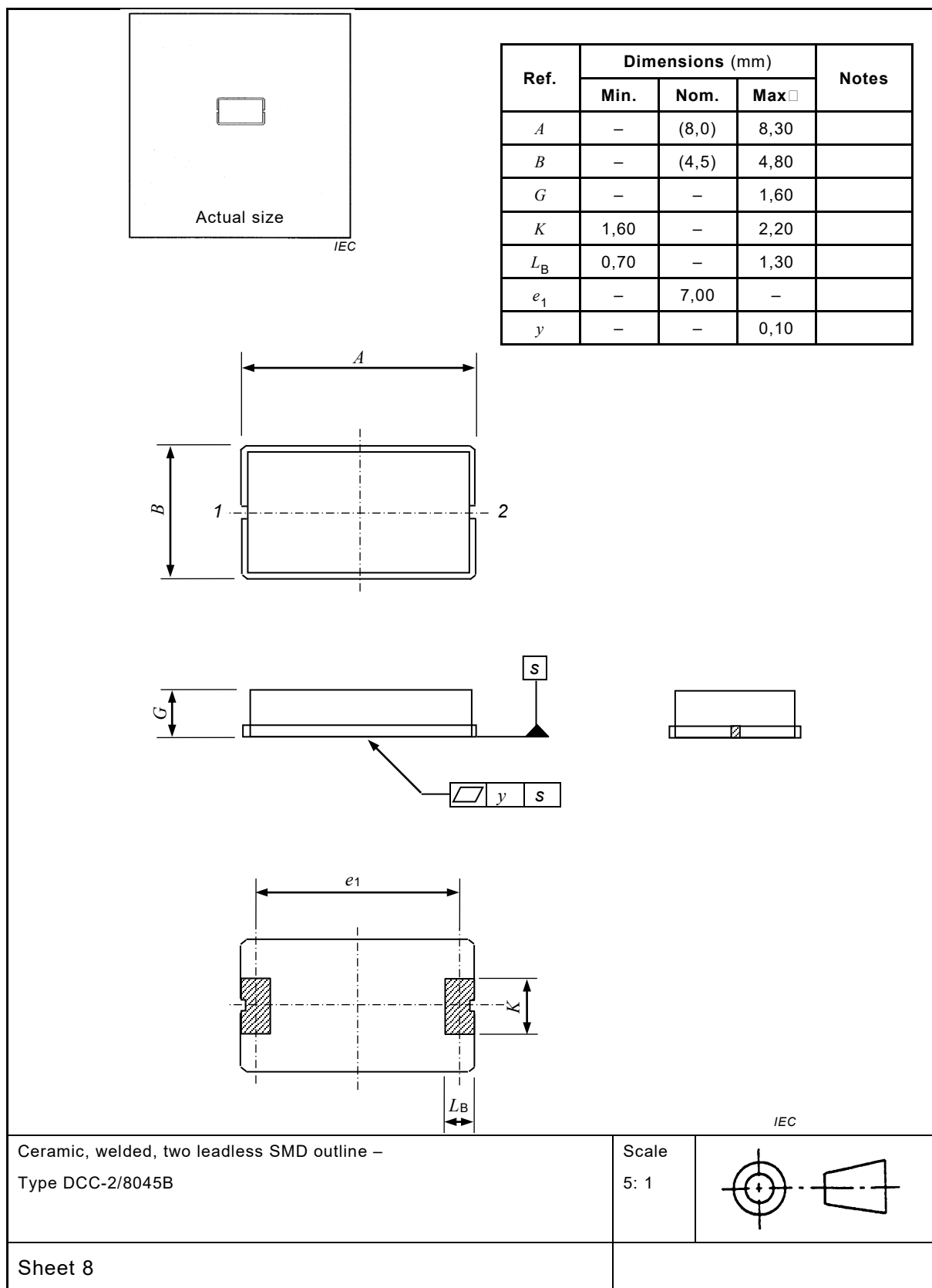
Scale
5: 1



Sheet 7

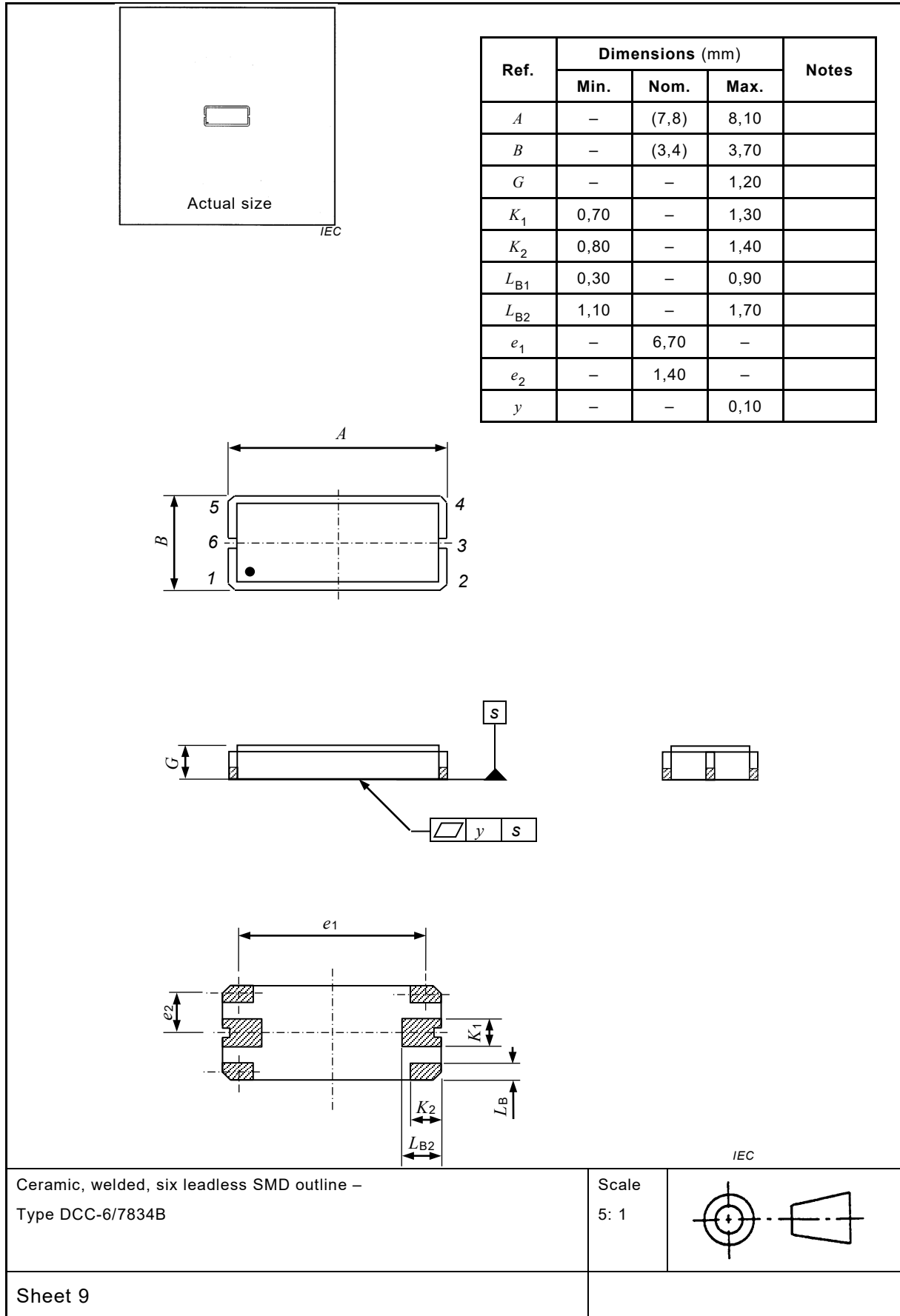
Terminal land connections of Type DCC-4/8045B

No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1	Terminal 1	Control voltage		
2	Option	Ground		
3	Terminal 2	Output		
4	Option	DC supply		



Terminal land connections of Type DCC-2/8045B

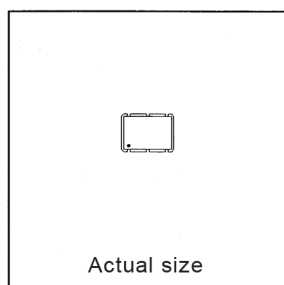
No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1	Terminal 1			
2	Terminal 2			



Terminal land connections of Type DCC-6/7834B

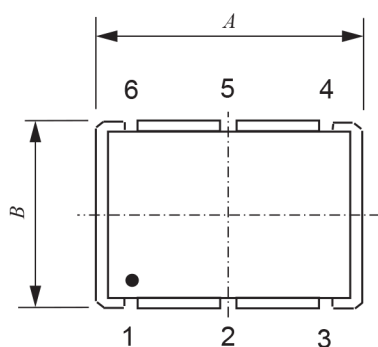
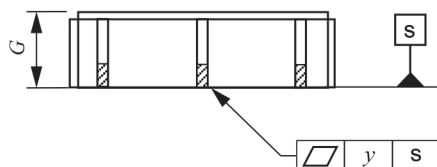
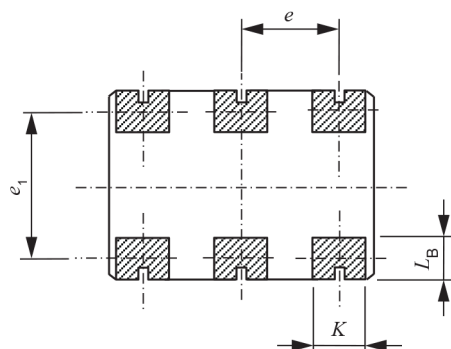
No.	Crystal unit	Crystal oscillator	Crystal filter	SAW devices
1	Option			
2	Option			
3	Terminal 1			
4	Option			
5	Option			
6	Terminal 2			

A1



IEC

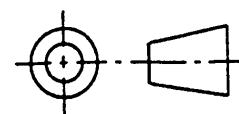
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
<i>A</i>	—	(7,0)	7,30	
<i>B</i>	—	(5,0)	5,30	
<i>G</i>	—	—	2,00	
<i>K</i>	1,10	—	1,70	
<i>L_B</i>	0,80	—	1,40	
<i>e</i>	—	2,54	—	
<i>e₁</i>	—	3,90	—	
<i>y</i>	—	—	0,10	



IEC

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

Scale
15: 1



Sheet 10