BS EN 61837-3:2015

BSI Standards Publication

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

Part 3: Metal enclosures

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National foreword

This British Standard is the UK implementation of EN 61837-3:2015. It is identical to IEC 61837-3:2015. It supersedes BS EN 61837-3:2001 which is withdrawn.

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 secretary.

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.

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Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 61837-3

December 2015

ICS 31.140

Supersedes EN 61837-3:2000

English Version

Surface mounted piezoelectric devices for frequency control and selection - Standard outlines and terminal lead connections - Part 3: Metal enclosures (IEC 61837-3:2015)

Dispositifs piézoélectriques à montage en surface pour la commande et le choix de la fréquence - Encombrements normalisés et connexions des sorties - Partie 3: Enveloppes métalliques (IEC 61837-3:2015)

Oberflächenmontierbare piezoelektrische Bauteile zur Frequenzstabilisierung und -selektion - Norm-Gehäusemaße und Anschlüsse - Teil 3: Metallgehäuse (IEC 61837-3:2015)

This European Standard was approved by CENELEC on 2015-05-20. 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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 49/1118/FDIS, future edition 2 of IEC 61837-3, 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 61837-3:2015.

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)	2016-06-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-05-20

This document supersedes EN 61837-3:2000.

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

Endorsement notice

The text of the International Standard IEC 61837-3:2015 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).
A1:2004	A1:2004
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 60679-1:2007	NOTE Harmonized as EN 60679-1:2007 (not modified).
IEC 60679-3:2012	NOTE Harmonized as EN 60679-3:2013 (not modified).
IEC 60862-1:2003	NOTE Harmonized as EN 60862-1:2003 (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).
ISO 1101:2012	NOTE Harmonized as EN ISO 1101:2013 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When 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.

Publication	Year	Title	EN/HD	Year
IEC 61240	2012	Piezoelectric devices - Preparation of outline drawings of surface-mounted devices (SMD) for frequency control and selection - General rules	EN 61240	2012

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 3: Metal enclosures

FOREWORD

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International Standard IEC 61837-3 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This second edition cancels and replaces the first edition published in 2000. It constitutes a technical revision.

This International Standard is to be read in conjunction with IEC 61240:2012.

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

- The outline drawing is defined as one set of drawings consisting of four views, which are the view from above, the front view, the view from the right, and the view from below; the view from the right was drawn optionally in the previous edition.

- The height of package (G_1) is eliminated, instead total height is expressed by the symbol letter *G* or with a subscript number.
- The dimensions of terminal lead spacing are shown by the centre position of the terminal leads and its basic value *e* is 2.54 × *n* mm (*n* is an integer) and 1,27 × *n* mm for package dimensions smaller than 6 mm (See IEC 61240:2012, 5.5). If the terminal lead spacing is not a multiple of the basic value, a subscript number such as e_1, e_2 is attached, e.g. e_1, e_2, etc. If there are plural spacing values, the subscript number is followed by a hyphen and numbers such as $e_{1\text{-}1}$, $e_{1\text{-}2}$, etc.
- In terminal land areas, the lengths of each terminal pad are now expressed with maximum values for consumer's convenience. They were expressed as minimum values in the previous edition of IEC 61837-3.
- If there are plural identical enclosures with different height, each enclosure was expressed by a dash (/) and a two-digit number after the basic type name. The identity references are given in the table of the sheet.
- The configurations of the enclosures were revised as shown in Table 1.

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

FDIS	Report on voting
49/1118/FDIS	49/1140/RVD

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

This publication 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 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.

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

Part 3: Metal enclosures

1 Scope

This part of IEC 61837 deals with standard outlines and terminal lead connections as they apply to SMDs for frequency control and selection in metal enclosures and is based on IEC 61240 which standardized layout rules of outline drawings of the surface-mounted devices.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61240:2012, *Piezoelectric devices – Preparation of outline drawings of surface mounted devices (SMD) for frequency control and selection – General rules*

3 Configuration of enclosures

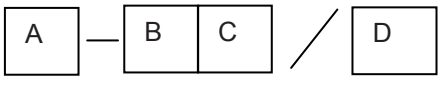
The enclosures of the surface-mounted devices are made of metal with the formed lead terminals based on the descriptive designation system for semiconductors – devices package.

All SMD enclosures described in this part of IEC 61837 are special surface mount types. Therefore, the following designator is used.

– SMS (Surface-Mounted, Special)

4 Designation of types

The type designator consists of four parts as follows:



A: Configuration symbol of enclosures:
- SMS (Surface-Mounted, Special).

B: Structure of terminal leads
- L: folded leads type;
- J: folded leads type.

If there is a leadless type, it will have no mark.

See Clause 3 of IEC 61240:2012, Classification of SMD.

C: Number of terminal leads

D: 2-digit serial number

5 Metal enclosure dimensions

The dimensions given in this part of IEC 61837 apply to all completed SMD for frequency control and selection. Only those dimensions are given which meet the requirements of IEC 61240.

- If there are plural identical enclosures with different height (*G*), or different length (*F*), etc. The symbol letter shall be expressed with a subscript number such as G_1, G_2, F_1, F_2, etc.
- The dimensions of terminal lead spacing shall be shown by the centre position of the terminal leads and its basic value *e* is 2,54 $\times n$ mm (n is an integer) and 1,27 $\times n$ mm for package dimensions smaller than 6 mm (see IEC 61240:2012, 5.5). If the terminal lead spacing is not a multiple of the basic value, a subscript number such as e_1, e_2 shall be attached. If there are plural spacing values, the subscript number shall be followed by a hyphen and numbers such as $e_{1\text{-}1}$, $e_{1\text{-}2}$, etc.
- If there are plural identical enclosures with different height, each enclosure was expressed by the following dash (/) and two digit number after the basic type name. The identity references are given in the table of the sheet.

6 Lead connections

Since SMS types of enclosures are special SMD type, they won't have any specified lead connections. However, lead connections shall always be given in the detail specification under the agreement with customers.

7 Designation of metal enclosures

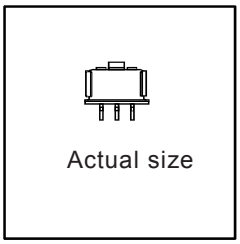
Table 2 sets out the designation of the metal enclosures as outlined in the following specification sheets. All corresponding enclosures are listed in Table 1 below.

Table 1 – Revised configurations

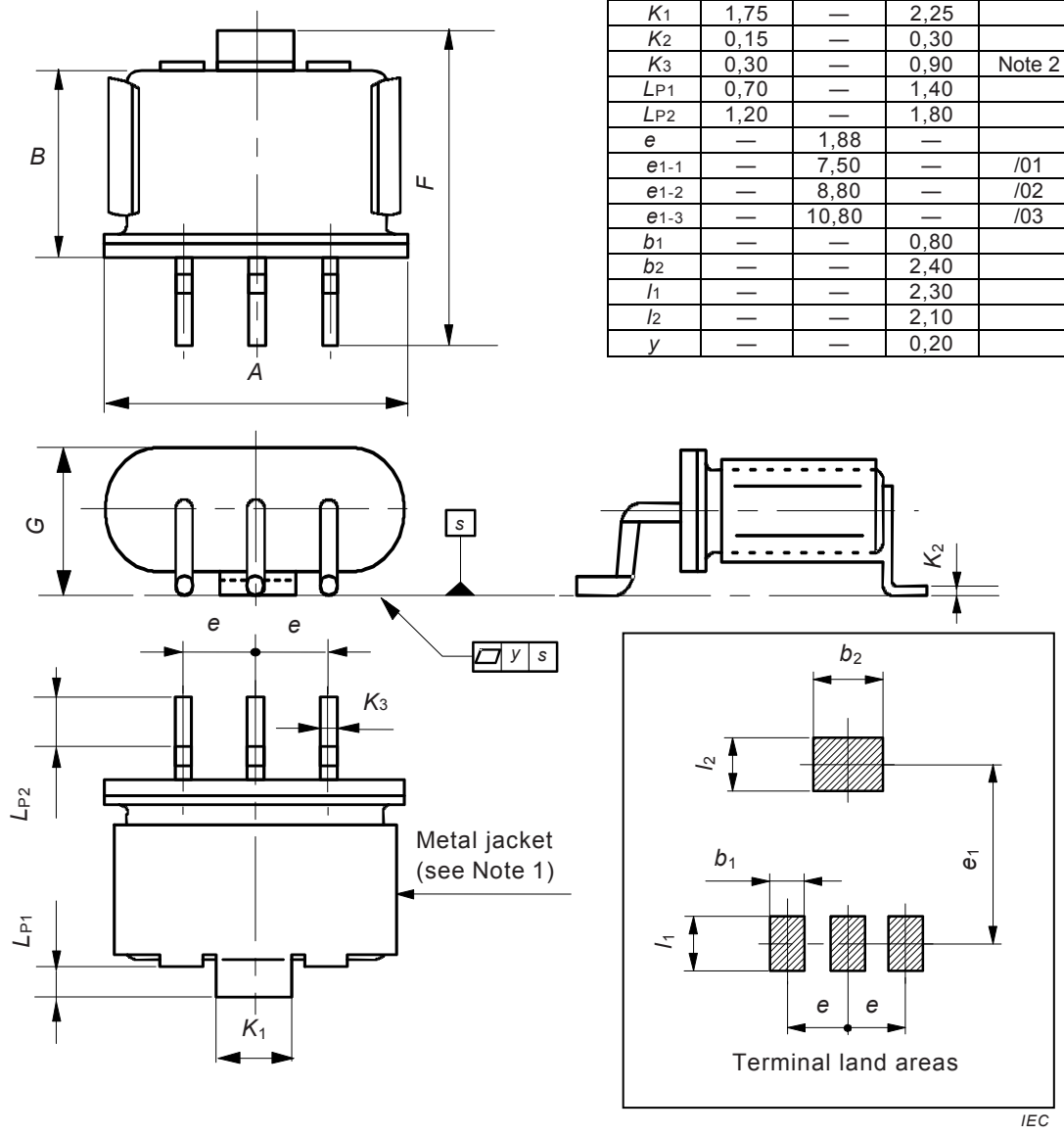
Type	Sheet No.	Description
SMS-L4/01~03	Sheet 1	Maximum LP_1 was changed from 1,2 to 1,4.
SMS-L4/04~07	Sheet 2	Maximum B_1 was changed from 9,5 to 9,6. Maximum LP_1 was changed from 1,2 to 1,4.
SMS-J2/01~02	Sheet 12	Maximum *B* was changed from 4,7 to 5,0. Minimum K_1 was changed from 0,85 to 0,6.

Table 2 – Designation of metal enclosures

No.	Type	Sheet No.	Description
1	SMS – L4/01	Sheet 1	Metal, resistance-welded, four L-lead SMD outline
2	SMS – L4/02		
3	SMS – L4/03		
4	SMS – L4/04	Sheet 2	Metal, resistance-welded, four L-lead SMD outline
5	SMS – L4/05		
6	SMS – L4/06		
7	SMS – L4/07		
8	SMS – L3/01	Sheet 3	Metal, resistance-welded, three L-lead SMD outline
9	SMS – L3/02		
10	SMS – L3/03		
11	SMS – L3/04	Sheet 4	Metal, resistance-welded, three L-lead, SMD outline
12	SMS – L3/05		
13	SMS – L3/06	Sheet 5	Metal, resistance-welded, three L-lead, SMD outline
14	SMS – L3/07		
15	SMS – L3/08		
16	SMS – L3/09	Sheet 6	Metal, resistance-welded, three L-lead, SMD outline
17	SMS – L3/10		
18	SMS – L3/11		
19	SMS – L3/12	Sheet 7	Metal, resistance-welded, three L-lead SMD outline
20	SMS – L3/13		
21	SMS – L3/14		
22	SMS – L3/15	Sheet 8	Metal, resistance-welded, three L-lead, SMD outline
23	SMS – L3/16		
24	SMS – L3/17		
25	SMS – L3/18		
26	SMS – L3/19		
27	SMS – L3/20		
28	SMS – L3/21	Sheet 9	Metal, resistance-welded, three L-lead SMD outline
29	SMS – L3/22		
30	SMS – L3/23		
31	SMS – L3/24		
32	SMS – L3/25	Sheet 10	Metal, resistance-welded, three L-lead SMD outline
33	SMS – L3/26		
34	SMS – L3/27		
35	SMS – J4/01	Sheet 11	Metal, resistance-welded, plastic frame, four J-lead SMD outline
36	SMS – J2/01	Sheet 12	Metal, resistance-welded, plastic frame, two J-lead SMD outline
37	SMS – J2/02		

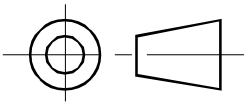


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/01
B_2	—	—	6,40	/02
B_3	—	—	8,80	/03
F_1	—	—	9,50	/01
F_2	—	—	10,80	/02
F_3	—	—	12,75	/03
G	—	—	4,00	
K_1	1,75	—	2,25	
K_2	0,15	—	0,30	
K_3	0,30	—	0,90	Note 2
L_{P1}	0,70	—	1,40	
L_{P2}	1,20	—	1,80	
e	—	1,88	—	
e_{1-1}	—	7,50	—	/01
e_{1-2}	—	8,80	—	/02
e_{1-3}	—	10,80	—	/03
b_1	—	—	0,80	
b_2	—	—	2,40	
l_1	—	—	2,30	
l_2	—	—	2,10	
y	—	—	0,20	

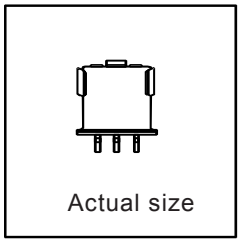


NOTE 1 The configuration of the metal jacket is given as an example.

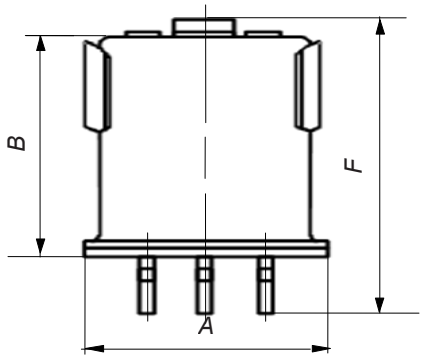
NOTE 2 This portion of the lead may be re-shaped under pressure.

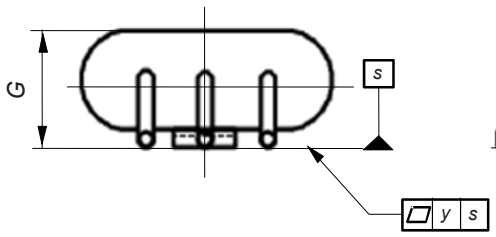
Metal, resistance-welded, four L-lead SMD outline – Type SMS-L4/01 ~ 03	Scale 5:1	

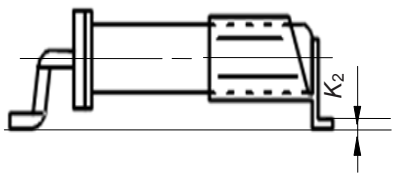
Sheet 1

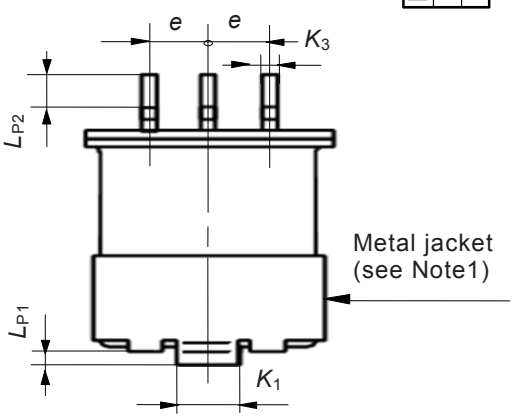


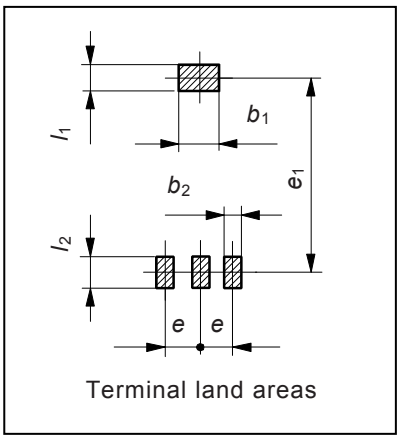
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	11,05	
B_1	—	—	9,60	/04
B_2	—	—	10,70	/05
B_3	—	—	11,40	/06
B_4	—	—	13,50	/07
F_1	—	—	14,30	/04
F_2	—	—	15,50	/05
F_3	—	—	16,20	/06
F_4	—	—	18,30	/07
G	—	—	5,30	
K_1	2,90	—	3,10	
K_2	0,15	—	0,30	
K_3	0,38	—	1,10	Note 2
L_{P1}	0,70	—	1,40	
L_{P2}	1,00	—	1,70	
e	—	2,44	—	
e_{1-1}	—	11,80	—	/04
e_{1-2}	—	13,00	—	/05
e_{1-3}	—	13,70	—	/06
e_{1-4}	—	16,00	—	/07
b_1	—	—	5,00	
b_2	—	—	1,40	
l_1	—	—	1,80	
l_2	—	—	3,00	
y	—	—	0,20	







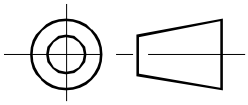




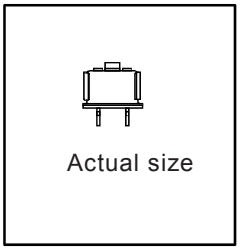
IEC

NOTE 1 The configuration of the metal jacket is given as an example.

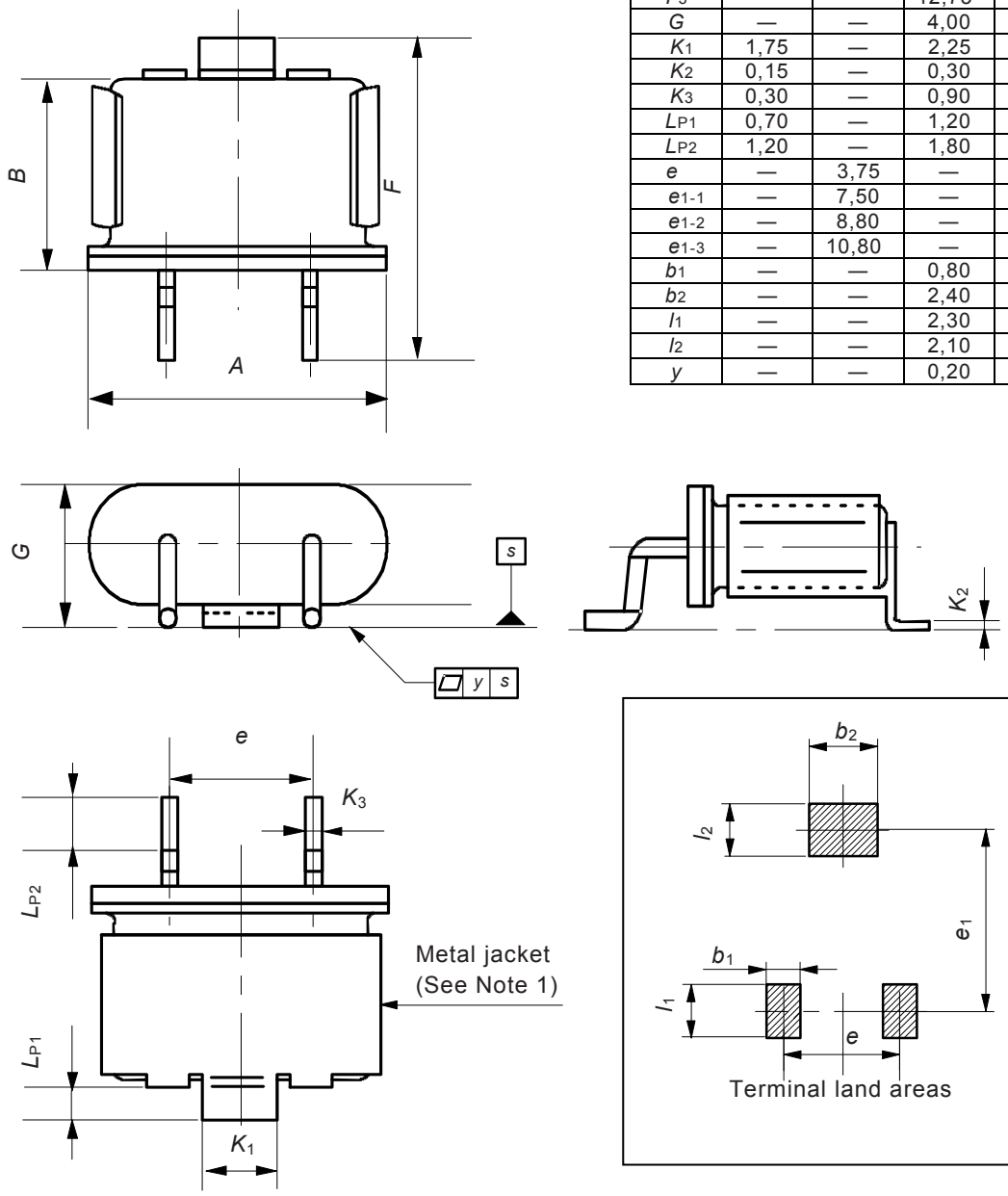
NOTE 2 This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, four L-lead SMD outline – Type SMS-L4/04 ~ 07	Scale 3:1	

Sheet 2

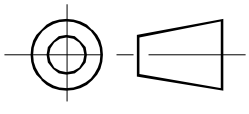


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/01
B_2	—	—	6,40	/02
B_3	—	—	8,80	/03
F_1	—	—	9,50	/01
F_2	—	—	10,80	/02
F_3	—	—	12,75	/03
G	—	—	4,00	
K_1	1,75	—	2,25	
K_2	0,15	—	0,30	
K_3	0,30	—	0,90	Note 2
L_{P1}	0,70	—	1,20	
L_{P2}	1,20	—	1,80	
e	—	3,75	—	
e_{1-1}	—	7,50	—	/01
e_{1-2}	—	8,80	—	/02
e_{1-3}	—	10,80	—	/03
b_1	—	—	0,80	
b_2	—	—	2,40	
l_1	—	—	2,30	
l_2	—	—	2,10	
y	—	—	0,20	



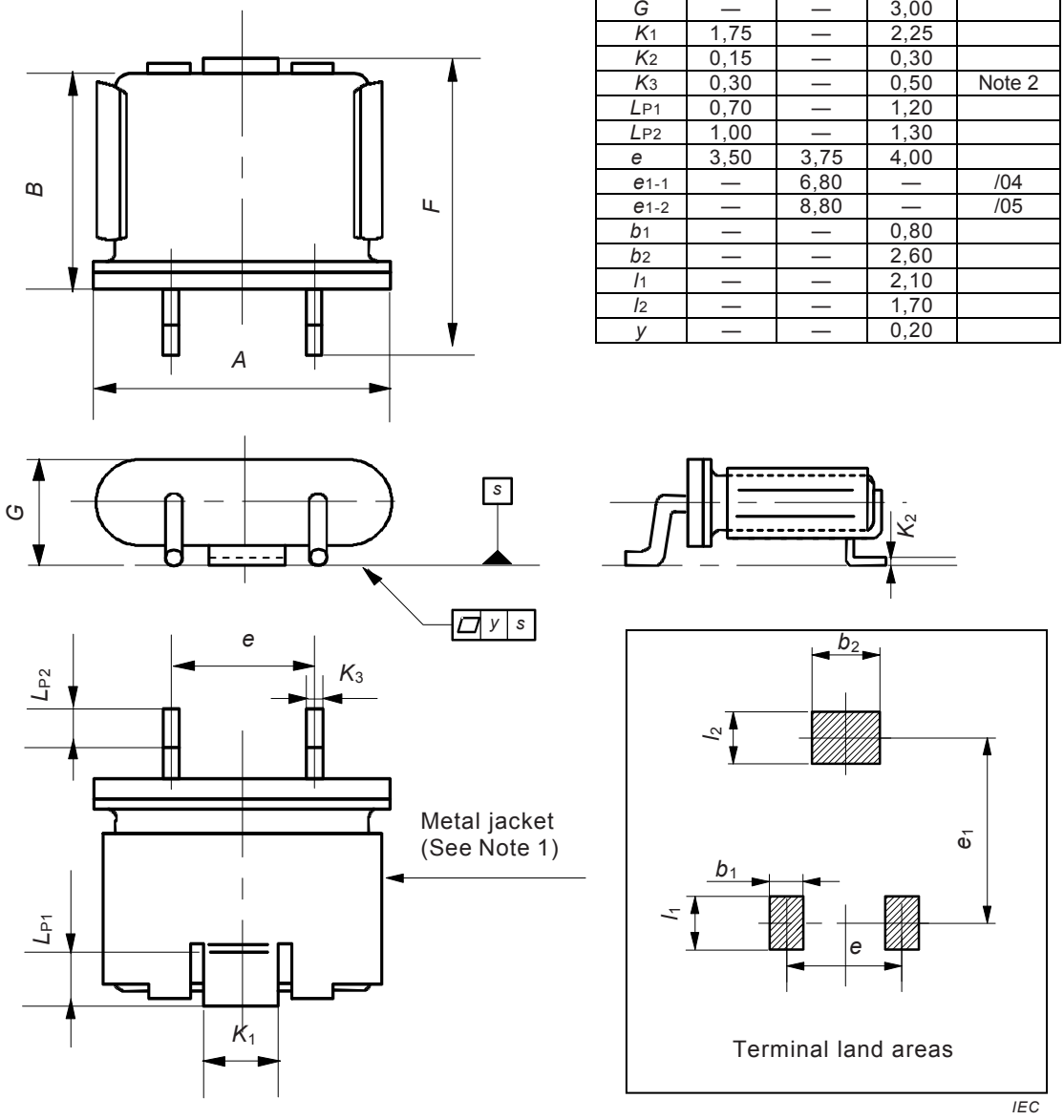
NOTE 1 The configuration of the metal jacket is given as an example.

NOTE 2 This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/01 ~ 03	Scale 5:1	

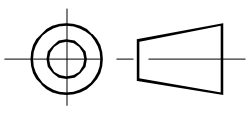
Sheet 3

Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	6,00	/04
B_2	—	—	8,00	/05
F_1	—	—	8,20	/04
F_2	—	—	10,20	/05
G	—	—	3,00	
K_1	1,75	—	2,25	
K_2	0,15	—	0,30	
K_3	0,30	—	0,50	Note 2
L_{P1}	0,70	—	1,20	
L_{P2}	1,00	—	1,30	
e	3,50	3,75	4,00	
e_{1-1}	—	6,80	—	/04
e_{1-2}	—	8,80	—	/05
b_1	—	—	0,80	
b_2	—	—	2,60	
l_1	—	—	2,10	
l_2	—	—	1,70	
y	—	—	0,20	

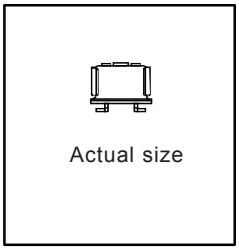


NOTE 1 The configuration of the metal jacket is given as an example.

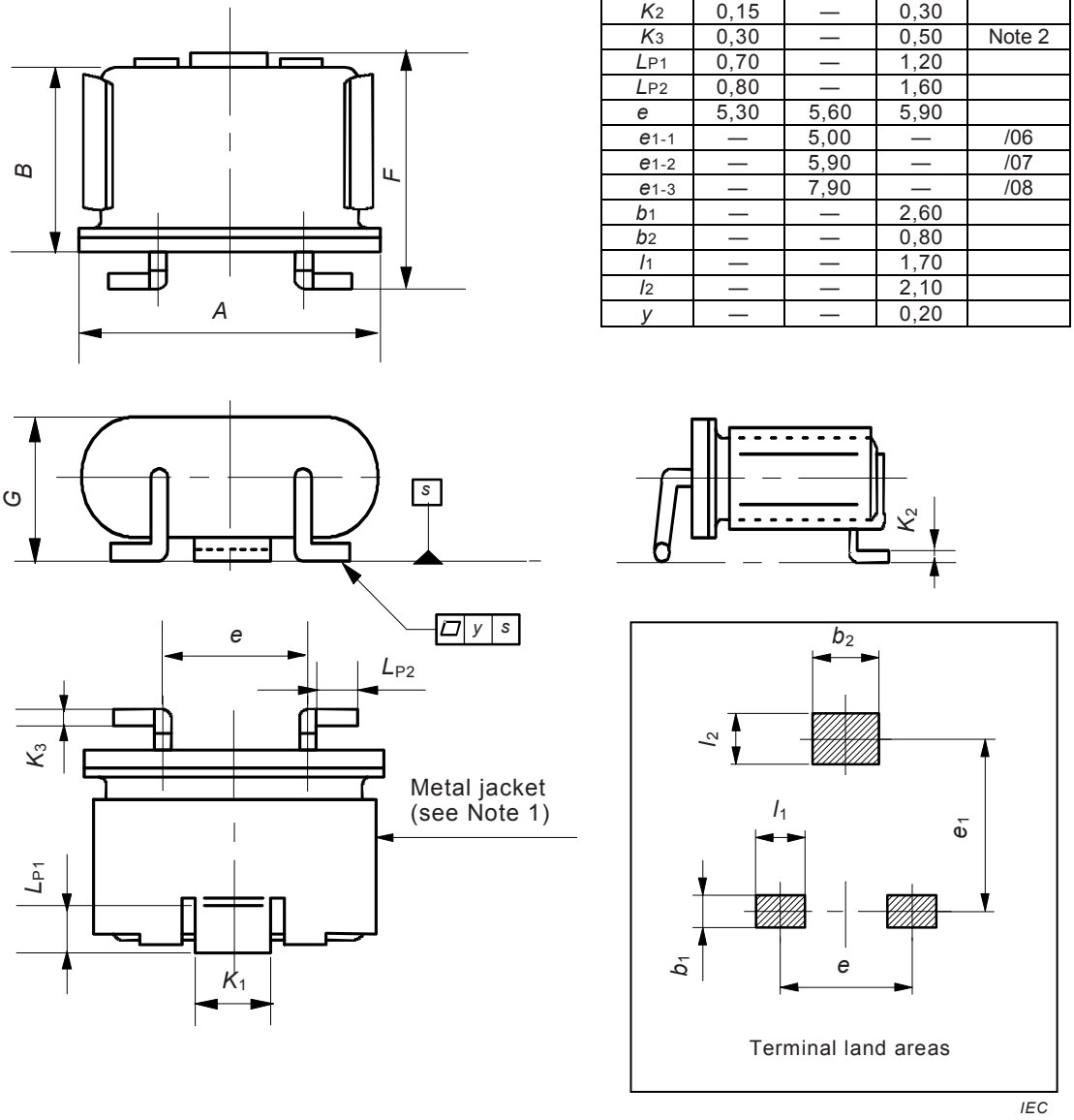
NOTE 2 This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/04 ~ 05	Scale 5:1	

Sheet 4

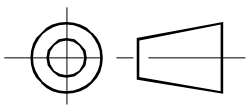


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/06
B_2	—	—	6,00	/07
B_3	—	—	8,00	/08
F_1	—	—	6,20	/06
F_2	—	—	8,00	/07
F_3	—	—	10,00	/08
G	—	—	4,00	
K_1	1,75	—	2,25	
K_2	0,15	—	0,30	
K_3	0,30	—	0,50	Note 2
L_{P1}	0,70	—	1,20	
L_{P2}	0,80	—	1,60	
e	5,30	5,60	5,90	
e_{1-1}	—	5,00	—	/06
e_{1-2}	—	5,90	—	/07
e_{1-3}	—	7,90	—	/08
b_1	—	—	2,60	
b_2	—	—	0,80	
l_1	—	—	1,70	
l_2	—	—	2,10	
y	—	—	0,20	

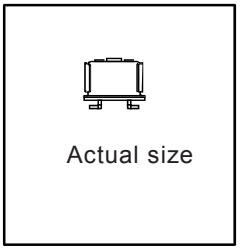


NOTE 1 The configuration of the metal jacket is given as an example.

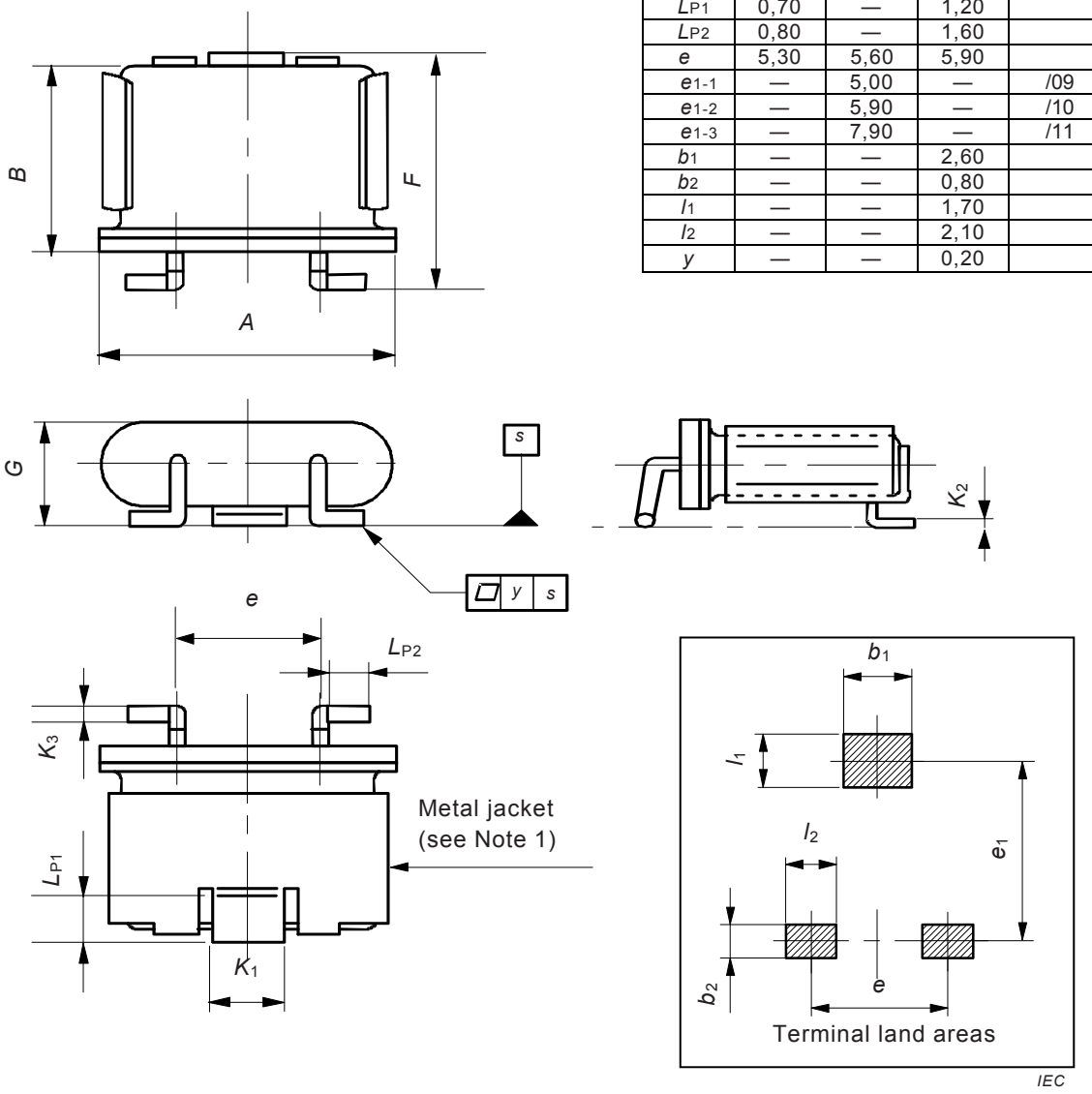
NOTE 2 This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/06 ~ 08	Scale 5:1	

Sheet 5

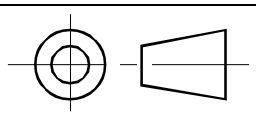


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/09
B_2	—	—	6,00	/10
B_3	—	—	8,00	/11
F_1	—	—	7,70	/09
F_2	—	—	8,00	/10
F_3	—	—	10,00	/11
G	—	—	3,00	
K_1	1,75	—	2,25	
K_2	0,15	—	0,30	
K_3	0,30	—	0,50	Note 2
L_{P1}	0,70	—	1,20	
L_{P2}	0,80	—	1,60	
e	5,30	5,60	5,90	
e_{1-1}	—	5,00	—	/09
e_{1-2}	—	5,90	—	/10
e_{1-3}	—	7,90	—	/11
b_1	—	—	2,60	
b_2	—	—	0,80	
l_1	—	—	1,70	
l_2	—	—	2,10	
y	—	—	0,20	

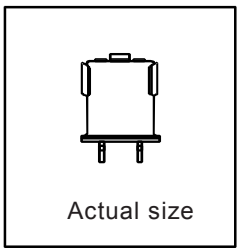


NOTE 1 The configuration of the metal jacket is given as an example.

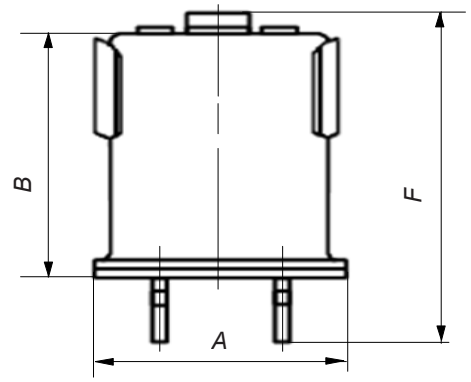
NOTE 2 This portion of the lead may be re-shaped under pressure.

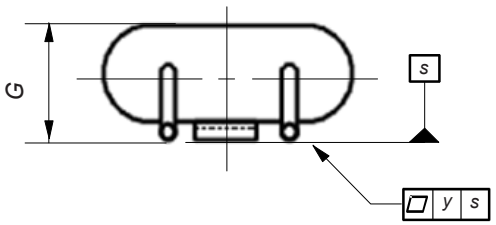
Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/09 ~ 11	Scale 5:1	

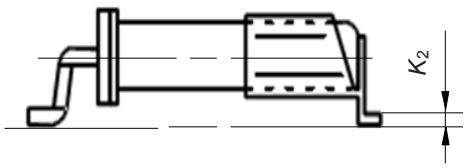
Sheet 6

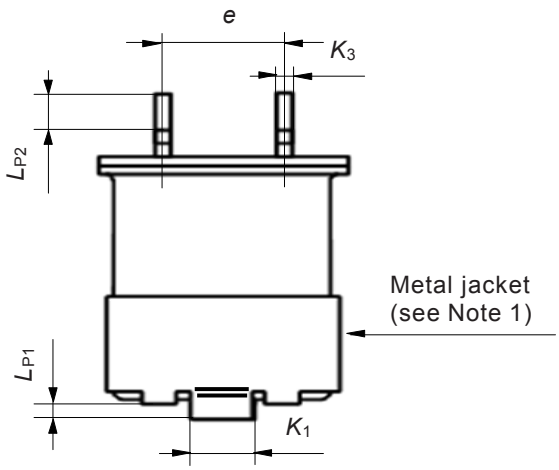


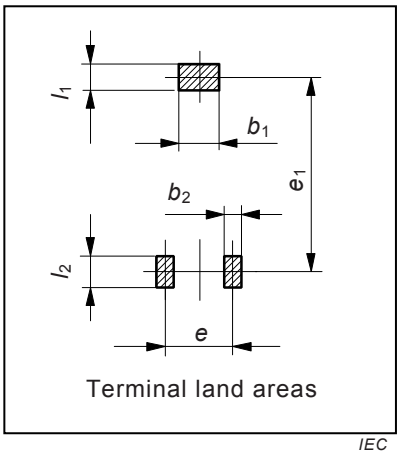
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	11,05	
B_1	—	—	10,70	/12
B_2	—	—	11,40	/13
B_3	—	—	13,50	/14
F_1	—	—	15,50	/12
F_2	—	—	16,20	/13
F_3	—	—	18,30	/14
G	—	—	5,30	
K_1	2,90		3,10	
K_2	0,15	—	0,30	
K_3	0,40	—	1,10	Note 2
L_{P1}	0,70	—	1,20	
L_{P2}	1,10	—	1,70	
e		4,88		
e_{1-1}	—	13,00	—	/12
e_{1-2}	—	13,70	—	/13
e_{1-3}	—	16,00	—	/14
b_1	—	—	3,40	
b_2	—	—	1,40	
l_1	—	—	1,60	
l_2	—	—	2,10	
y	—	—	0,20	





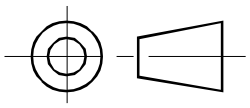




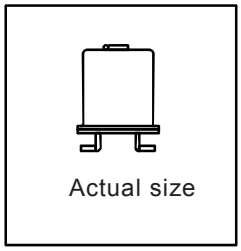


NOTE 1 The configuration of the metal jacket is given as an example.

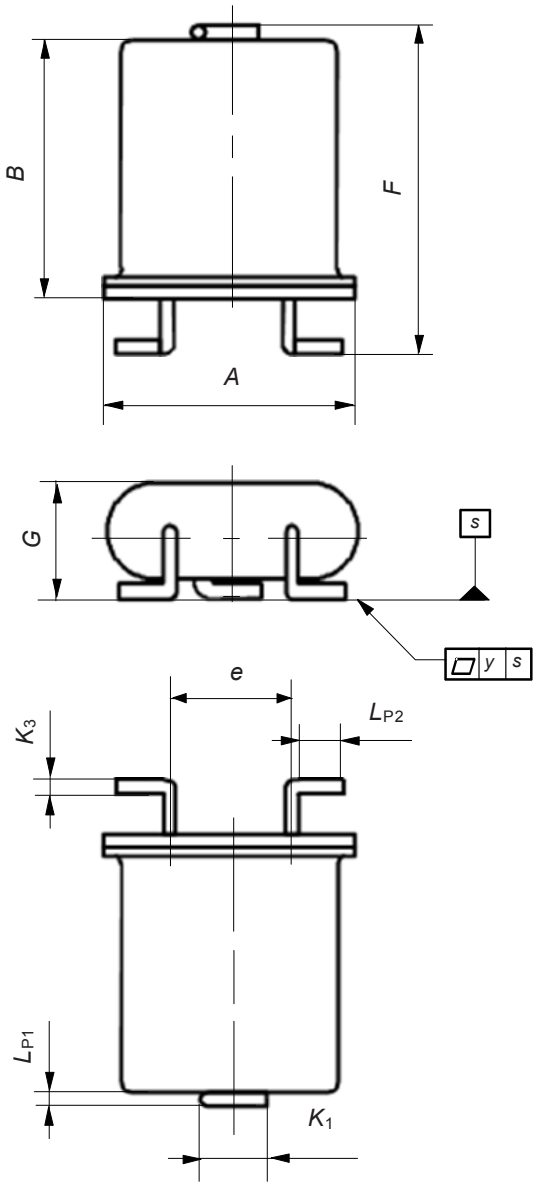
NOTE 2 This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/12 ~ 14	Scale 3:1	

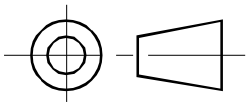
Sheet 7



Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	11,05	
B_1	—	—	5,10	/15
B_2	—	—	6,60	/16
B_3	—	—	9,70	/17
B_4	—	—	10,70	/18
B_5	—	—	11,40	/19
B_6	—	—	13,50	/20
F_1	7,15	—	7,85	/15
F_2	8,65	—	9,35	/16
F_3	10,95	—	11,65	/17
F_4	12,75	—	13,45	/18
F_5	13,45	—	14,15	/19
F_6	15,55	—	16,25	/20
G	—	—	5,30	
K_1	1,50	—	2,00	
K_2	0,40	—	0,48	
K_3	0,40	—	0,48	Note
L_{P1}	0,40	—	0,48	
L_{P2}	1,50	—	2,10	
e	4,67	4,90	5,08	
e_{1-1}	—	7,05	—	/15
e_{1-2}	—	8,55	—	/16
e_{1-3}	—	11,65	—	/17
e_{1-4}	—	12,65	—	/18
e_{1-5}	—	13,35	—	/19
e_{1-6}	—	15,45	—	/20
b_1	—	—	0,70	
b_2	—	—	2,20	
l_1	—	—	1,80	
l_2	—	—	0,70	
y	—	—	0,20	

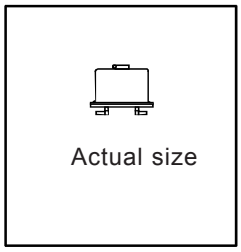


NOTE This portion of the lead may be re-shaped under pressure.

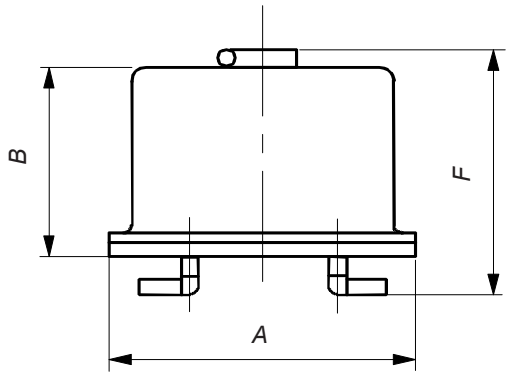
Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/15 ~ 20	Scale 3:1	

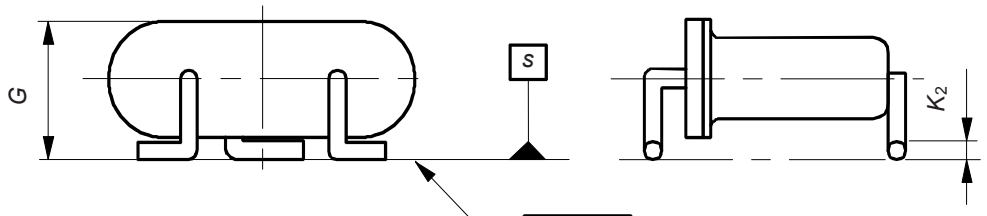
Sheet 8

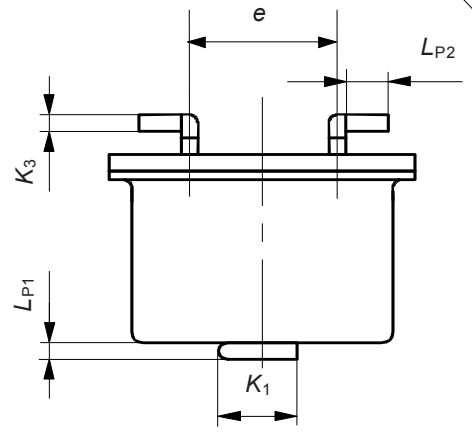
(Voir Note 1)

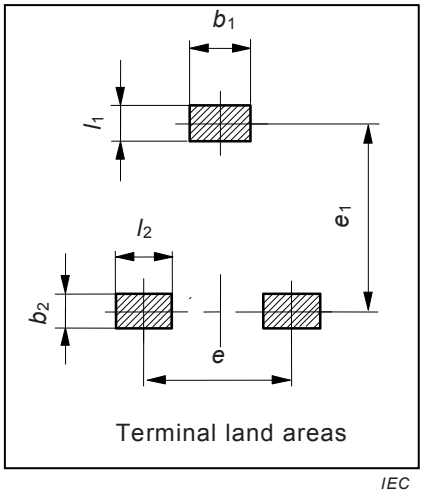


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/21
B_2	—	—	6,00	/22
B_3	—	—	8,00	/23
B_4	—	—	8,80	/24
F_1	6,40	—	7,00	/21
F_2	7,30	—	7,90	/22
F_3	9,30	—	9,90	/23
F_4	10,10	—	10,70	/24
G	—	—	3,80	
K_1	1,40	—	1,60	
K_2	0,40	—	0,50	
K_3	0,40	—	0,50	Note
L_{P1}	0,40	—	0,50	
L_{P2}	1,20	—	1,60	
e	5,00	5,15	5,30	
e_{1-1}	—	6,30	—	/21
e_{1-2}	—	7,20	—	/22
e_{1-3}	—	9,20	—	/23
e_{1-4}	—	10,00	—	/24
b_1	—	—	1,80	
b_2	—	—	0,70	
l_1	—	—	0,70	
l_2	—	—	1,80	
y	—	—	0,20	



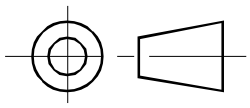




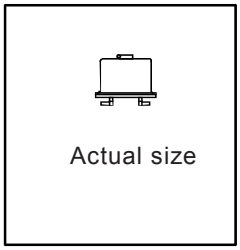


IEC

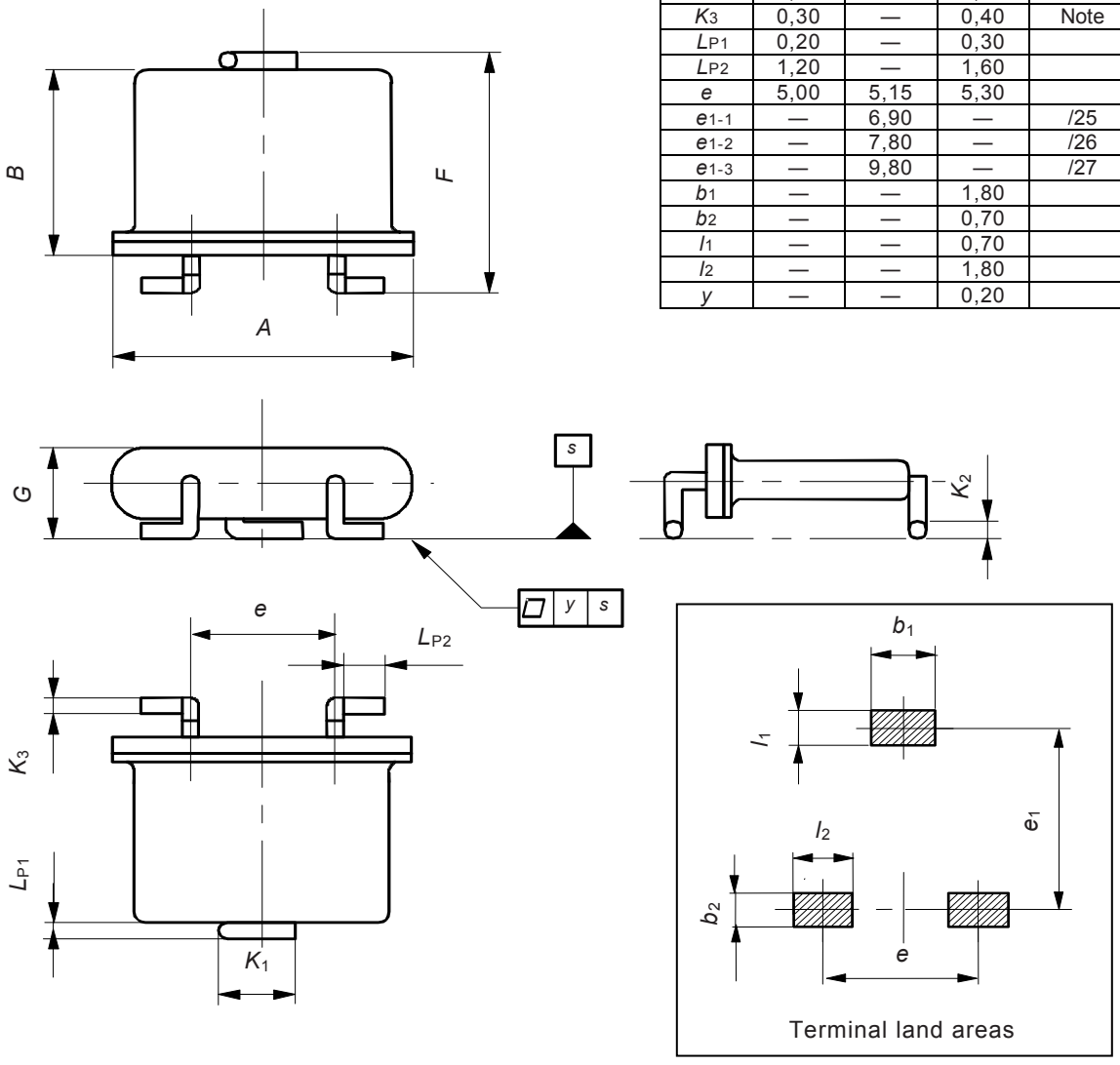
NOTE This portion of the lead may be re-shaped under pressure.

Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/21 ~ 24	Scale 5:1	

Sheet 9

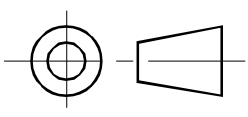


Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	8,26	
B_1	—	—	5,10	/25
B_2	—	—	6,00	/26
B_3	—	—	8,00	/27
F_1	—	—	7,20	/25
F_2	—	—	8,10	/26
F_3	—	—	10,10	/27
G	—	—	2,60	
K_1	1,25	—	1,35	
K_2	0,20	—	0,30	
K_3	0,30	—	0,40	Note
L_{P1}	0,20	—	0,30	
L_{P2}	1,20	—	1,60	
e	5,00	5,15	5,30	
e_{1-1}	—	6,90	—	/25
e_{1-2}	—	7,80	—	/26
e_{1-3}	—	9,80	—	/27
b_1	—	—	1,80	
b_2	—	—	0,70	
l_1	—	—	0,70	
l_2	—	—	1,80	
y	—	—	0,20	

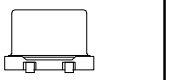


IEC

NOTE This portion of the lead may be re-shaped under pressure.

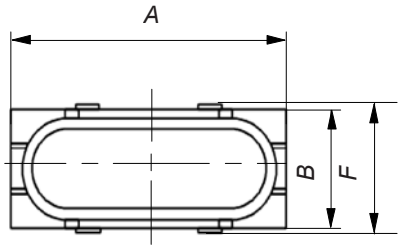
Metal, resistance-welded, three L-lead SMD outline – Type SMS-L3/25 ~ 27	Scale 5:1	

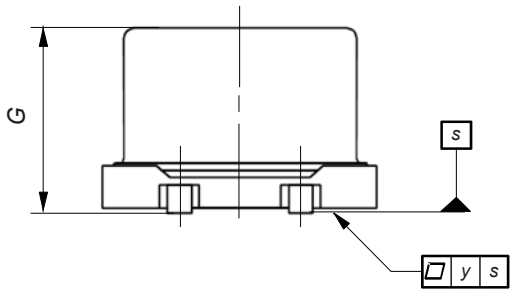
Sheet 10

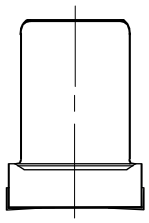


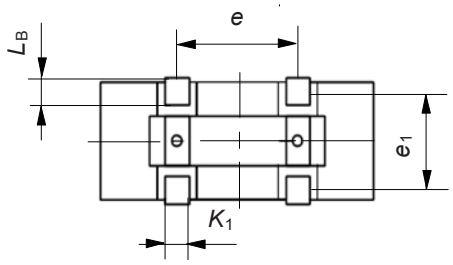
Actual size

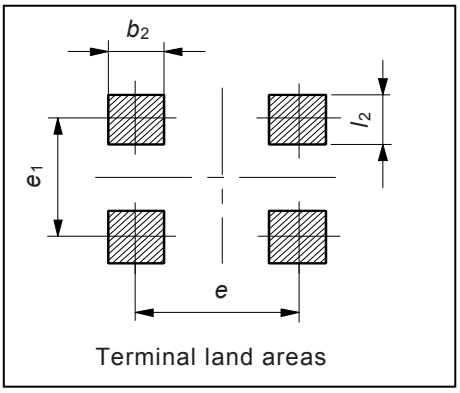
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	12,00	
B	—	—	5,20	
F	—	—	5,50	
G	—	—	8,20	
K_1	0,70	—	1,40	
L_B	1,00	—	1,40	
e	—	4,90	—	
e_1	—	4,00	—	
b_2	—	—	2,00	
l_2	—	—	2,00	
y	—	—	0,15	





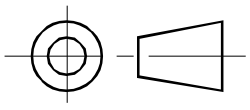




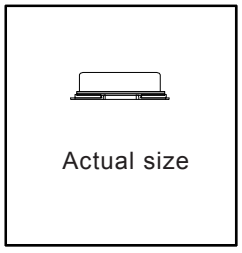


Terminal land areas

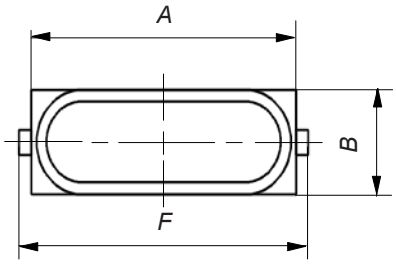
IEC

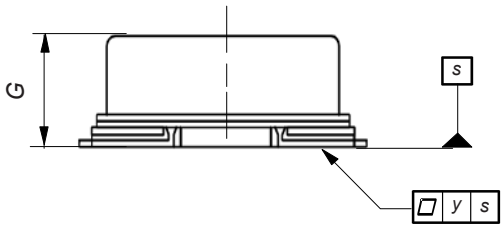
Metal, resistance-welded, plastic frame, four J-lead SMD outline – Type SMS-J4/01	Scale 3:1	

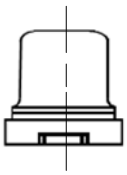
Sheet 11

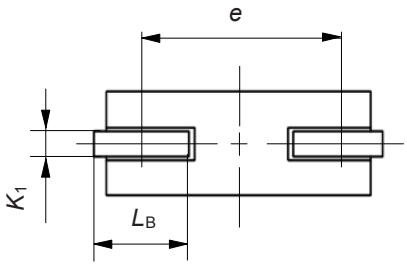


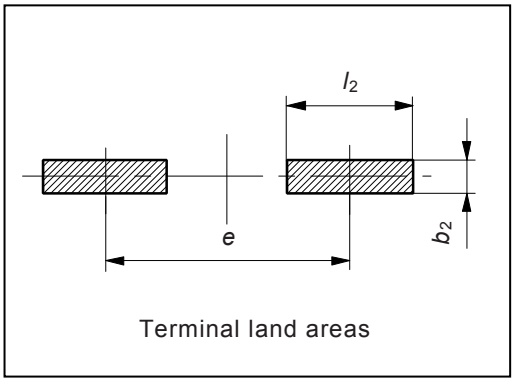
Ref.	Dimensions (mm)			Notes
	Min.	Nom.	Max.	
A	—	—	11,60	
B	—	—	5,00	
G_1	—	—	3,50	/01
G_2	—	—	5,00	/02
K_1	0,6	—	1,15	
F	11,80	—	13,50	
L_B	3,30	—	3,90	
e	—	8,80	—	
b_2	—	—	1,35	
l_2	—	—	3,90	
y	—	—	0,15	



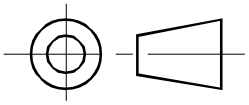








IEC

Metal, resistance-welded, plastic frame, two J-lead SMD outline – Type SMS-J2/01 ~ 02	Scale 3:1	

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