# SLOVENSKI STANDARD

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julij 2004

Surface acoustic wave (SAW) filters of assessed quality - Part 3: Standard outlines (IEC 60862-3:2003)



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EUROPEAN STANDARD **EN 60862-3**

NORME EUROPÉENNE

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ICS 31.140

English version

# Surface acoustic wave (SAW) filters of assessed quality
# Part 3: Standard outlines
(IEC 60862-3:2003)

Filtres à ondes acoustiques de surface (OAS) sous assurance de la qualité
Partie 3: Encombrements normalisés
(CEI 60862-3:2003)

Oberflächenwellenfilter (OFW-Filter) mit bewerteter Qualität
Teil 3: Norm-Gehäusemaße
(IEC 60862-3:2003)

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

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Ref. No. EN 60862-3:2003 E

## Foreword

The text of document 49/613/FDIS, future edition 2 of IEC 60862-3, prepared by IEC TC 49, Piezoelectric and dielectric devices for frequency control and selection, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60862-3 on 2003-12-01.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-09-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-12-01

## Endorsement notice

The text of the International Standard IEC 60862-3:2003 was approved by CENELEC as a European Standard without any modification.

# NORME INTERNATIONALE

# INTERNATIONAL STANDARD

**CEI**
**IEC**
**60862-3**

Deuxième édition
Second edition
2003-10

## Filtres à ondes acoustiques de surface (OAS) sous assurance de la qualité –

## Partie 3: Encombrements normalisés



## Surface acoustic wave (SAW) filters of assessed quality –



## Part 3: Standard outlines



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

# SURFACE ACOUSTIC WAVE (SAW) FILTERS OF ASSESSED QUALITY –

## Part 3: Standard outlines

## FOREWORD

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International Standard IEC 60862-3 has been prepared by IEC technical committee 49: Piezoelectric and dielectric devices for frequency control and selection.

This second edition cancels and replaces the first edition issued in 1986. It constitutes a technical revision.

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

| FDIS | Report on voting |
|---|---|
| 49/613/FDIS | 49/622/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 ISO/IEC Directives, Part 2.

IEC 60862 consists of the following parts under the general title: *Surface acoustic wave (SAW) filters of assessed quality:*

Part 1: Generic specification;

Part 2: Guidance on use;

Part 3: Standard outlines;

Part 4: Sectional specification – Capability approval[1];

Part 4-1: Sectional specification – Blank detail specification – Capability approval[1];

Part 5: Sectional specification – Qualification approval[1];

Part 5-1: Sectional specification – Blank detail specification – Qualification approval[1].

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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



[1] Under consideration.

# INTRODUCTION

The first edition of IEC 60862-3 (1986) contained 13 SAW filter enclosure types showing the dimensional and geometrical characteristics of these enclosures. Since its release, due to progress in technology, many of the enclosures given in that standard have become obsolete.

Bearing this in mind, TC 49 has issued a questionnaire on all outlines contained in IEC 60862-3. Based on the replies received, TC 49 made a decision at the meeting held in Rotterdam in June 1996 to retain only enclosures which remained in “wide usage” at that time. These enclosures are specified in the present standard.

The following 5 enclosure types have been deleted from the first edition of IEC 60862-3 (1986): SFA 02, SFB 01, SFB 02, SFC 01, SFD 01.

# SURFACE ACOUSTIC WAVE (SAW) FILTERS OF ASSESSED QUALITY –

## Part 3: Standard outlines

### 1 Scope

This part of IEC 60862 specifies the outline drawings for surface acoustic wave (SAW) filters with leaded enclosures.

### 2 Guidance for the standardization of outline drawings for frequency control and selection devices

In order to achieve a uniform presentation of all outline drawings for frequency control and selection devices the following guide should be considered:

**2.1** An outline drawing should show all dimensional and geometrical characteristics of an enclosure necessary to ensure mechanical interchangeability with all other enclosures of the same outline. Enlarged detail view may be used, if necessary.

**2.2** The outline drawing should consist of three parts:



**2.2.1** A drawing with dimensional symbols (capital letters) as shown in Figure 1 below with applicable notes, if necessary.



**2.2.2** A tabular listing relating the drawing symbols to the actual dimensions. Where possible this should be shown on the same page as the drawing.

**2.2.3** An “actual-size” sketch (scale 1:1).

**2.3** The outline drawing should be executed in the third angle projection.

**2.4** The function and identification of the lead connections (termination) should be determined by agreement between the supplier and user. They should not be defined on the outline drawing.

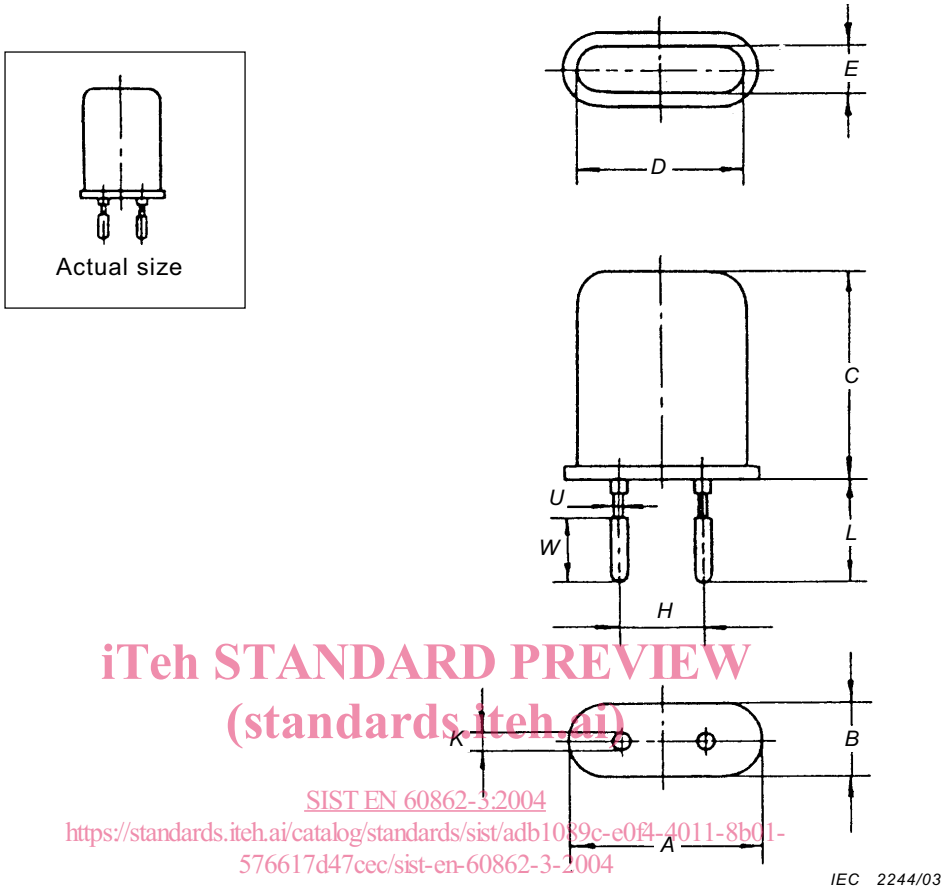
**2.5** Descriptive notes may be used at the bottom of, or adjacent to, the drawing with proper reference to the body of the drawing.

**2.6** All dimensions should be in millimetres.

**2.7** Outline dimensions *A*, *B*, *C*, *D* and *E* should be listed with maximum values only.

**2.8** Lead (termination) cross-sectional dimensions should be listed with minimum and maximum values. If applicable, nominal dimensions may be added.

**2.9** The spacing of the leads (terminations) – symbol *H* – should be listed with minimum, maximum and nominal dimensions.



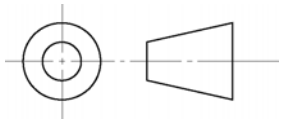



| Ref. | Dimensions (mm) | | | Notes |
|---|---|---|---|---|
| | Min. | Nom. | Max. | |
| *A* | – | – | x | |
| *B* | – | – | x | |
| *C* | – | – | x | |
| *D* | – | – | x | |
| *E* | – | – | x | |
| *H* | x | x | x | |
| *K* | x | – | x | 1 |
| *L* | x | – | x | |
| *U* | x | – | – | 2 |
| *W* | x | – | – | 2 |

NOTE 1....
NOTE 2....

**Figure 1 – Guidance for outline drawings**

Scale 2:1



Sheet --

Date:

**2.10** Leads (terminations) for soldering application should be specified with the minimum length dimensions (symbol *L*) only.

**2.11** Lead (termination) for plug-in application should be specified with minimum and maximum length dimensions.

**2.12** If leads (terminations) are provided with an undercut, dimensions *U* and *W* should be listed with minimum dimensions only.

## 3 Dimensions of surface acoustic wave (SAW) filter outlines

The dimensions in this standard apply to the completed SAW filters.

Only those dimensions which meet the requirements of the guidance for standardization of outline drawings are given (see Clause 2).

## 4 Designation of surface acoustic wave (SAW) filter enclosures

**Table 1 – Designation of surface acoustic wave (SAW) filter enclosures**

| No. | Type | Sheet No. | Description | National reference | |
|---|---|---|---|---|---|
| | | | | Country | Reference |
| 1 | SFA 01 | Sheet 1 | Metal, welded, five-lead TV-IF SAW filter outline | | |
| 2 | SFA 03 | Sheet 2 | Metal, welded, five-lead TV-IF SAW filter outline | | |
| 3 | SFA 04 | Sheet 3 | Metal, welded, five-lead TV-IF SAW filter outline | | |
| 4 | SFA 05 | Sheet 4 | Metal, welded, eight-lead TV-IF SAW filter outline | | |
| 5 | SFB 03 | Sheet 5 | Four-lead, plastic, metal shielded single-in-line TV-IF SAW filter outline | | |
| 6 | SFE 01 | Sheet 6 | Metal, welded, five-lead TV-IF SAW filter outline | | |
| 7 | SFF 01 | Sheet 7 | Ten-lead, plastic, dual-in-line TV-IF SAW filter outline | Germany | DIP 10 |
| 8 | SFG 01 | Sheet 8 | Five-lead, plastic, single-in-line TV-IF SAW filter outline | Germany | SIP 5 |