

**SLOVENSKI STANDARD**  
**SIST EN 140401-803:2008/A1:2010**  
**01-december-2010**

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**Podrobna specifikacija: Fiksni folijski upori majhnih moči za površinsko montažo - Valjasti - Razredi stabilnosti 0,05; 0,1; 0,25; 0,5; 1; 2 - Dopnilo A1**

Detail specification: Fixed low power film SMD resistors - Cylindrical - Stability classes 0,05; 0,1; 0,25; 0,5; 1; 2

Bauartspezifikation: SMD Schicht-Festwiderstände niedriger Belastbarkeit - Zylindrisch - Stabilitätsklassen 0,05; 0,1; 0,25; 0,5; 1; 2

Spécification particulière: Résistances couche fixes à faible dissipation CMS - Cylindriques - Catégories de stabilité 0,05; 0,1; 0,25; 0,5; 1; 2

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**Ta slovenski standard je istoveten z: EN 140401-803:2007/A1:2010**

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**ICS:**

31.040.10      Fiksni upor      Fixed resistors

**SIST EN 140401-803:2008/A1:2010      en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 140401-803/A1**

October 2010

ICS 31.040.10

English version

**Detail specification: Fixed low power film SMD resistors -  
Cylindrical -  
Stability classes 0,05; 0,1; 0,25; 0,5; 1; 2**

Spécification particulière: Résistances  
couche fixes à faible dissipation CMS -  
Cylindriques -  
Catégories de stabilité 0,05; 0,1; 0,25; 0,5;  
1; 2

Bauartspezifikation: SMD Schicht-  
Festwiderstände niedriger Belastbarkeit -  
Zylindrisch -  
Stabilitätsklassen 0,05; 0,1; 0,25; 0,5; 1; 2

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This amendment A1 modifies the European Standard EN 140401-803:2007; it was approved by CENELEC on 2010-10-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

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**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

This amendment was prepared by the Technical Committee CENELEC TC 40XB, Resistors.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 140401-803:2007 on 2010-10-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented  
at national level by publication of an identical  
national standard or by endorsement (dop) 2011-10-01
  - latest date by which the national standards conflicting  
with the amendment have to be withdrawn (dow) 2013-10-01
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## Text of A1 to EN 140401-803:2007

## 1.3 Resistance range and tolerance on rated resistance

## 1.3.1 Version A

Table 3a – Resistance range, tolerance on rated resistance for version A

Amend Table 3a to contain the following information:

Style	Tolerance on rated resistance		Temperature coefficient ppm/K	Resistance range	Stability class
	%	Code <sup>a</sup>			
RC 2211M	...				
	± 0,5	D	± 50; ± 25	10 Ω to 221 kΩ	0,25
	...				
...					

## 1.6 Limits for change of resistance at tests

Replace Table 7a by:

Table 7a – Limits for change of resistance at tests

Stability class	Limit of resistance change $\Delta R$			
	EN 60115-1 <sup>a</sup> , 4.23 Climatic sequence 4.24 Damp heat, steady state 4.25.3 Endurance at upper category temperature	EN 60115-1 <sup>a</sup> , 4.25.1 Endurance at 70 °C		EN 60115-1 <sup>a</sup> , 4.13 Overload 4.18 Resistance to soldering heat 4.19 Rapid change of temperature, 5 cycles 4.22 Vibration 4.33 Substrate bending <sup>d</sup>
		1 000 h	Extended, 8 000 h	
2	$\pm (2 \% R + 0,1 \Omega)^c$	$\pm (0,5 \% R + 0,05 \Omega)^b$	$\pm (1 \% R + 0,05 \Omega)^b$	$\pm (0,5 \% R + 0,05 \Omega)$
1	$\pm (1 \% R + 0,05 \Omega)$	$\pm (0,25 \% R + 0,05 \Omega)^b$	$\pm (0,5 \% R + 0,05 \Omega)^b$	$\pm (0,25 \% R + 0,05 \Omega)$
0,5	$\pm (0,5 \% R + 0,05 \Omega)$	$\pm (0,25 \% R + 0,05 \Omega)^b$	$\pm (0,5 \% R + 0,05 \Omega)^b$	$\pm (0,1 \% R + 0,01 \Omega)$
0,25	$\pm (0,25 \% R + 0,05 \Omega)$	$\pm (0,25 \% R + 0,05 \Omega)$	$\pm (0,5 \% R + 0,05 \Omega)$	$\pm (0,05 \% R + 0,01 \Omega)$
0,1	$\pm (0,1 \% R + 0,02 \Omega)$	$\pm (0,1 \% R + 0,02 \Omega)$	$\pm (0,25 \% R + 0,02 \Omega)$	$\pm (0,05 \% R + 0,01 \Omega)$
0,05	$\pm (0,05 \% R + 0,01 \Omega)$	$\pm (0,05 \% R + 0,01 \Omega)$	$\pm (0,1 \% R + 0,01 \Omega)$	$\pm (0,025 \% R + 0,01 \Omega)$

<sup>a</sup> EN 60115-1:2001 + A1:2001.  
<sup>b</sup> Tightening of the general definition of stability classes against the requirements of EN 140400, 2.1.4.  
<sup>c</sup> (+2/-0,5 % R + 0,05 Ω for the test Endurance at upper category temperature, see also <sup>b</sup>.  
<sup>d</sup> Limits do not apply to style RC 2211M.

## Bibliography

**Add:**

EN 60068-2-20, *Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads* (IEC 60068-2-20)

**Replace** reference to EN 61193-2 by:

EN 61193-2, *Quality assessment systems - Part 2: Selection and use of sampling plans for inspection of electronic components and packages* (IEC 61193-2)

**Delete** footnote 1).

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