Product or Process Change Notification (PCN)



PCN Form Number: 2018 T Date: 2018-11-26

Company: KOA Europe GmbH Department: Engineering & Quality

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Affected product: KOA's "Fixed metal film resistors".

Affected factory: (KOA Kaohsiung Corporation, Taiwan)

KOA part number: 1) MF1/2* series. (Diameter change),

2) MF(S)1/4*, MF(S)1/2* (color tone change)

Customer part number: Several (partlist upon request).

Description of change: 1) We will standardized the lead wire diameter of MF1/2* series

from 0.7mm to 0.6mm (same as we already produce in our

Japanese factory).

2) The color tone of above series will be harmonize (same as in our

Japanese factory).

Reason for the change: In the past, the lead wire diameter and the color tone of marking (base on

factory) was different.

Effective Date of the

change:

April 2019.

Product identification: By Lot no.

Sample availabilty: On request

Quality and reliability: The electrical and mechanical performance will not be affected by this

Change. Already placed (confirmed) orders will be unchanged.

Please check also additional documents:

"Color tone before and after the change" and "MF 1-2 Testdata".

-This is a Computer Generated Document - valid without signature -

Please acknowledge the receipt of this PCN within 30 days.

Lack of acknowledgement of the PCN within 30 days constitutes acceptance of the change.

After acknowledgement, lack of additional response within a 90 days period constitutes acceptance of the change.

(according to JEDEC Standard JESD46-B)

In case of a contract, the above acknowledgement rules are replaced by the contractual agreements.

Nr. des Dokuments	Version	Geltungsbereich	Autor	Gültig ab
QM II 102-03	13	KEG	Jochen Stange	17.10.2018

データ TEST DATA

FOR

塗装絶縁形金属皮膜固定抵抗器 COAT INSULATED FIXED METAL FILM RESISTORS

【 形名 】 MF1/2 【 TYPE 】 MF1/2

【項目】①端子強度 ②衝擊 ③振動

[ITEM] ①TERMINAL STREGTH ②MECHANICAL SHOCK ③VIBRATION

変 更 前 : リード線 径 φ 0.7 mm

CHANGE BEFORE : LEAD WIRE DIAMETER \$\phi\$0.7mm

変 更後 : リード線 径 φ 0.6mm

CHANGE AFTER : LEAD WIRE DIAMETER ϕ 0. 6mm

KOA株式会社 KOA Corporation				
発行日 Date 2018.11.22				
確 認 Approved	検 印 Checked	作 成 Drafted		
藤本	深尾	田畠		
K.Fujimoto	H.Fukao	T.Tabata		

試験項目 : 端子強度 (A:引張)

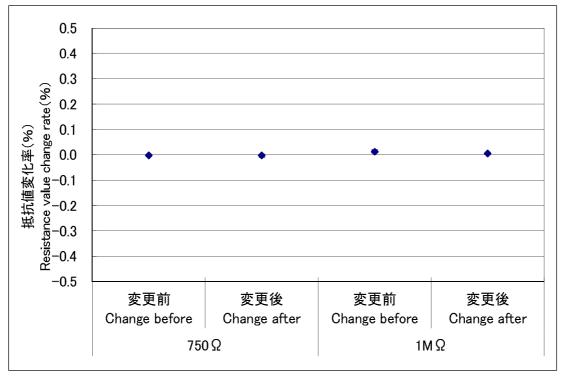
TEST ITEM: Terminal strength (A:Tensile)

試験条件 : AEC-Q200 (MIL-STD-202 方法211)

TEST CONDITION: AEC-Q200 (MIL-STD-202 Method 211)

試験サンプル: MF1/2 TEST SAMPLE: MF1/2

試験サンプル数 : 30



	750Ω		1ΜΩ	
	変更前	変更後	変更前	変更後
	Change before	Change after	Change before	Change after
AVE	-0.003	-0.002	0.012	0.005
MAX	0.001	0.001	0.019	0.009
MIN	-0.006	-0.009	0.008	0.001

試験項目 : 端子強度 (C:曲げ)

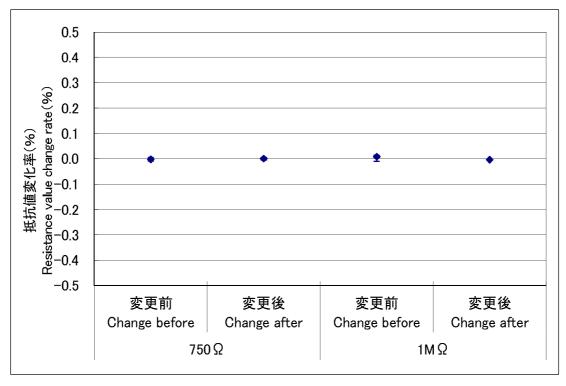
TEST ITEM: Terminal strength (C:Bending)

試験条件 : AEC-Q200 (MIL-STD-202 方法211)

TEST CONDITION: AEC-Q200 (MIL-STD-202 Method 211)

試験サンプル : MF1/2 TEST SAMPLE : MF1/2

試験サンプル数 : 30



	750Ω		1M Ω	
	変更前	変更後	変更前	変更後
	Change before	Change after	Change before	Change after
AVE	-0.002	0.001	0.008	-0.004
MAX	0.005	0.005	0.014	-0.001
MIN	-0.009	-0.005	-0.010	-0.006

試験項目 : 端子強度 (E:ねじり)

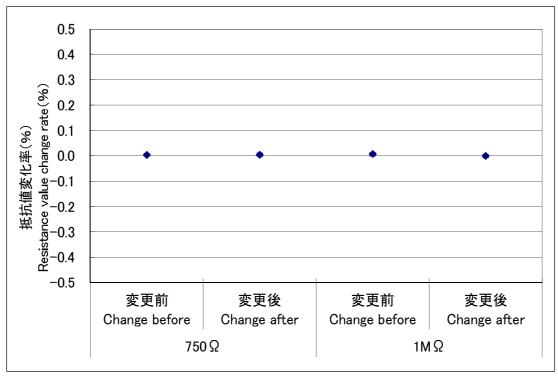
TEST ITEM: Terminal strength (E:Torsional)

試験条件 : AEC-Q200 (MIL-STD-202 方法211)

TEST CONDITION: AEC-Q200 (MIL-STD-202 Method 211)

試験サンプル : MF1/2 TEST SAMPLE : MF1/2

試験サンプル数 : 30



	750 Ω		1ΜΩ	
	変更前	変更後	変更前	変更後
	Change before	Change after	Change before	Change after
AVE	0.003	0.004	0.007	-0.001
MAX	0.007	0.010	0.011	0.003
MIN	0.000	-0.001	0.000	-0.006

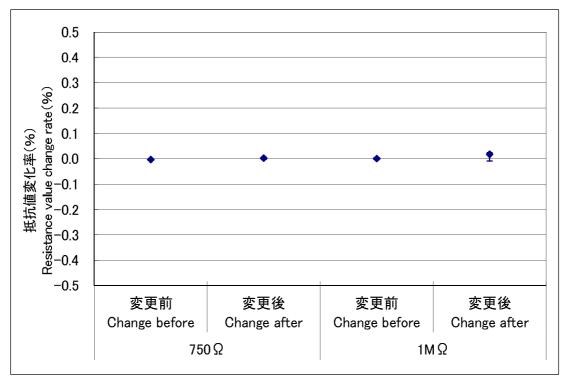
試験項目 : 衝撃 TEST ITEM : Mechanical shock

試験条件 : AEC-Q200 (MIL-STD-202 方法213)

TEST CONDITION: AEC-Q200 (MIL-STD-202 Method 213)

試験サンプル : MF1/2 TEST SAMPLE : MF1/2

試験サンプル数: 30



	750Ω		1M Ω	
	変更前	変更後	変更前	変更後
	Change before	Change after	Change before	Change after
AVE	-0.003	0.002	0.001	0.018
MAX	-0.002	0.005	0.004	0.023
MIN	-0.004	-0.003	-0.002	-0.009

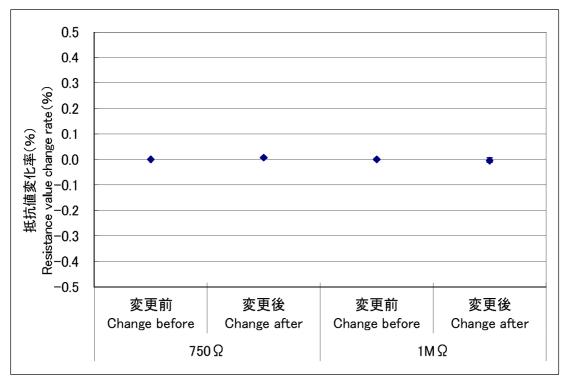
試験項目 : 振動 TEST ITEM : Vibration

試験条件 : AEC-Q200 (MIL-STD-202 方法204)

TEST CONDITION: AEC-Q200 (MIL-STD-202 Method 204)

試験サンプル : MF1/2 TEST SAMPLE : MF1/2

試験サンプル数: 30



	750Ω		1M Ω	
	変更前	変更後	変更前	変更後
	Change before	Change after	Change before	Change after
AVE	0.000	0.007	0.000	-0.005
MAX	0.002	0.008	0.004	0.007
MIN	-0.002	0.005	-0.004	-0.011



Comparison of color tone

	Before change	After change
Example:		
MF1/4 750ohm 1% tol.		