

March 27, 2015

## Product change

### **EPCOS aluminum electrolytic capacitors with screw terminals**

New materials are being introduced for the manufacture of the cover disks for the EPCOS screw terminal capacitors. The properties and behavior of the new silica-reinforced epoxy-phenolic resin are comparable to the previously used materials. While the color of the new materials is black, the previously used wood-filled phenolic resin is brown.

#### **Affected products**

Ordering code	Ordering code	Ordering code
B41456*	B43458*	B43566*
B41458*	B43464*	B43570*
B41465*	B43465*	B43580*
B41560*	B43467*	B43584*
B41580*	B43471*	B43586*
B43406*	B43474*	B43740*
B43407*	B43481*	B43750*
B43454*	B43484*	B43760*
B43455*	B43550*	B43770*
B43456*	B43560*	B43875*
B43457*	B43564*	

The cover disks made of the new material will uniformly incorporate vents of state-of-the-art design. Capacitors with the new cover disks have no changes in their external dimensions with respect to assembly.

#### **Exceptions**

The only exceptions concern types with a terminal diameter of 8 mm: The step around the terminals was reduced in height or eliminated altogether.

Capacitors with diameters	Height of molded part	
	Previous design	New design
35.7 mm	~5 mm	~2 mm
51.6 mm 64.3 mm 76.9 mm	~5 mm	0 mm

**EPCOS AG** · A TDK Group Company

Office: St.-Martin-Strasse 53, 81669 Munich · Post: P.O.Box 80 17 09, 81617 Munich, Germany

Headquarters: Munich · Commercial register of the local court (Amtsgericht): Munich HRB 127250

Chairman of the Supervisory Board: Dr. Werner Faber

Management Board: Joachim Zichlarz, Chairman · Joachim Thiele · Dr. Norbert Hess · Christian Block

www.epcos.com

**Aluminum Electrolytic  
Capacitors**  
Internal / External

150327ALU1e

March 27, 2015

These changes have no negative impact on the ruggedness, tightness or insulation properties.

Details may be seen in Annex 1. The affected ordering codes are listed in Annex 2.

Planned introduction: July 1, 2015

During a transitional period, shipments of the affected aluminum electrolytic capacitors may contain cover disk materials of both old and new types.

**Enclosure** PCN

Annex 1: Illustration of new and old disk cover

Annex 2: List of affected capacitor series and ordering codes

**Contact** Martin Testorf, CAP PM ALU, Munich

**Customers are asked to address inquiries directly to their sales contacts.**

## Product / Process Change Notification

<b>1. ID No.:</b> ALU_CAP_27_2015_06		<b>2. Date of announcement:</b> March 27, 2015	
<b>3. Product / product group:</b> Aluminum electrolytic capacitors with screw terminals	<b>Old ordering code:</b> B41456*, B41458*, B41465*, B41560*, B41580*, B43406*, B43407*, B43454*, B43455*, B43456*, B43457*, B43458*, B43464*, B43465*, B43467*, B43471*, B43474*, B43481*, B43484*, B43550*, B43560*, B43564*, B43566*, B43570*, B43580*, B43584*, B43586*, B43740*, B43750*, B43760*, B43770*, B43875*	<b>New ordering code:</b> No change	<b>Customer part number:</b>
<b>4. Description of change:</b>			
<p>Introduction of alternative thermoset materials (silica-reinforced epoxy-phenolic resin) for screw terminal cover disks.</p> <p>The properties and performance of the new materials are comparable to the present one. The color of the new materials is black (the present wood-filled phenolic resin is brown).</p> <p>The cover disks of the alternative thermosetting materials will uniformly incorporate a state-of-the-art vent design.</p> <p>Capacitors with the new cover disks have no changes in their external dimensions with respect to assembly.</p> <p>Exception: Only for types with a terminal diameter of 8mm: The molded part around the screw terminals has been eliminated / reduced. See Annex 1 for an illustration of the old and new design. See Annex 2 for a list of affected capacitor series and ordering codes.</p> <p>Capacitor diameter 35.7mm: Height of the molded part changed from ~5mm to ~2mm. Capacitor diameter 51.6mm/64.3mm/76.9mm: Height of the molded part changed from ~5mm to 0mm These changes have no negative effect on ruggedness, tightness or insulation.</p>			
<b>5. Effect on the product or for the customer (benefit, quality, specification, lead time):</b>			
Capacitors with the new cover disks have no changes in their external dimensions with respect to assembly.			
<b>6. Quality assurance measures / risk assessment:</b>			
According to the EPCOS Quality System. Full component traceability available.			
<b>7. Scheduled date of change:</b> Phase-in of new (black) epoxy-phenolic cover disk materials starting on July 1, 2015. EPCOS reserves the right to deliver the product (EPCOS ordering code) with both old (brown) and new (black) cover disk materials.			

**8. Estimated date of first delivery of changed product:** July 1, 2015

If EPCOS does not receive notification to the contrary within a period of 10 weeks, EPCOS assumes that the customer agrees to the change. For an interim period we cannot rule out that old as well as new products will be shipped.

Quality Management  
Name Christian Baur

Signature  
signed Baur

Product Marketing  
Name Martin Testorf  
Tel. +49 89 54020 3054  
Email Martin.Testorf@epcos.com

Signature  
signed Testorf

**Customer feedback**

Customer acknowledgement

Signature

**Annex 1 to UPToDATE 150327ALU1 of March 27, 2015 /  
PCN EPCOS aluminum electrolytic capacitors with screw terminals**

**Illustration of new and old cover disk for terminals with a diameter of 8 mm**

Remark: Change of molded part around the terminals; for affected series and ordering codes, see Annex 2

	Old design	New design
Capacitor diameter 35 mm		
Capacitor diameter 50...90 mm		

**List of affected capacitor series and ordering codes with a terminal diameter of 8 mm**

Remark: Change of molded part around the terminals; for illustration see Annex 1

Page 1/2

Series	Ordering code	
<b>B41456</b>	B41456B4100M000	
	B41456B4150M000	
	B41456B4229M000	
	B41456B4339M000	
	B41456B4479M000	
	B41456B4689M000	
	B41456B5100M000	
	B41456B5229M000	
	B41456B5339M000	
	B41456B5479M000	
	B41456B5689M000	
	B41456B7109M000	
	B41456B7159M000	
	B41456B7229M000	
	B41456B7339M000	
	B41456B7479M000	
	B41456B7689M000	
	B41456B8109M000	
	B41456B8159M000	
	B41456B8229M000	
	B41456B8339M000	
	B41456B8478M000	
	B41456B8688M000	
	B41456B9109M000	
	B41456B9159M000	
	B41456B9228M000	
	B41456B9338M000	
	B41456B9478M000	
	B41456B9688M000	
	B41456S7479M001	
	B41456S8109M001	
	<b>B41458</b>	B41458B4100M000
		B41458B4150M000
		B41458B4229M000
		B41458B5100M000
		B41458B5339M000
		B41458B5689M000
		B41458B7109M000
		B41458B7159M000
		B41458B7229M000
		B41458B7339M000
		B41458B7479M000
		B41458B7689M000
		B41458B8109M000
		B41458B8159M000
B41458B8229M000		
B41458B8339M000		
B41458B8478M000		
B41458B9109M000		
B41458B9159M000		
B41458B9228M000		
B41458B9338M000		
B41458B9478M000		
B41458B9688M000		
B41458S7159M001		
B41458S7279M001		
B41458S9648M001		

Series	Ordering code	
<b>B41560</b>	B41560A5100M000	
	B41560A5159M000	
	B41560A5229M000	
	B41560A5339M000	
	B41560A5479M000	
	B41560A5689M000	
	B41560A7109M000	
	B41560A7159M000	
	B41560A7229M000	
	B41560A7339M000	
	B41560A7479M000	
	B41560A7689M000	
	B41560A8109M000	
	B41560A8159M000	
	B41560A8229M000	
	B41560A8478M000	
	B41560A8688M000	
	B41560A9109M000	
	B41560A9158M000	
	B41560A9228M000	
	B41560A9338M000	
	B41560A9478M000	
	B41560A9688M000	
	<b>B41580</b>	B41580A5100M000
		B41580A5229M000
		B41580A5339M000
		B41580A5479M000
		B41580A5689M000
		B41580A7109M000
		B41580A7159M000
		B41580A7229M000
		B41580A7339M000
		B41580A7479M000
	B41580A7689M000	
	B41580A8159M000	
B41580A8229M000		
B41580A8478M000		
B41580A9109M000		
B41580A9228M000		
B41580A9338M000		
B41580A9478M000		
B41580A9688M000		
<b>B43406</b>	B43406S9578A001	
<b>B43407</b>	B43407S6638A001	
<b>B43455</b>	B43455A0108M000	
	B43455A0158M000	
	B43455A2228M000	
	B43455A0228M000	
	B43455A2338M000	
	B43455A2478M000	
	B43455A4108M000	
	B43455A4158M000	
	B43455A5227M000	
	B43455A5477M000	
	B43455A6477M000	

Series	Ordering code
<b>B43455 continuing</b>	B43455A9158M000
	B43455B4228M000
	B43455B4338M000
	B43455B5108M000
	B43455B5228M000
	B43455S2109M001
	B43455S4338M003
	B43455S5228M001
	B43455S5338M001
	B43455S9208M001
	B43455S9318A001
	B43455S9338M002
	B43455S9338Q001
	B43455T5167T001
	B43455T5208T002
B43455T5937T001	
B43455U4608T001	
B43455U5208T003	
<b>B43456</b>	B43456A4158M000
	B43456A4228M000
	B43456A5108M000
	B43456A5158M000
	B43456A9108M000
B43456A9158M000	
B43456A9228M000	
B43456S9568M001	
<b>B43457</b>	B43457A0108M000
	B43457A1688M000
	B43457A2108M000
	B43457A0228M000
	B43457A2338M000
	B43457A2478M000
	B43457A4158M000
	B43457A9158M000
	B43457B4228M000
	B43457B4338M000
	B43457B5228M000
	B43457S0338M004
	B43457S0338M005
	B43457S4478M001
	B43457S4688Q001
B43457S4688Q002	
B43457S0478M002	
B43457S5228M006	
B43457S5338M006	
B43457S5478M003	
B43457S5568Q001	
B43457S0888Q001	
B43457S9478M001	
B43457T5167T001	

Series	Ordering code
<b>B43458</b>	B43458A4158M000
	B43458A4228M000
	B43458A5108M000
	B43458A5158M000
	B43458A9108M000
	B43458A9158M000
	B43458A9228M000
B43458S9228M001	
<b>B43465</b>	B43465S0189Q001
	B43465T5707Q001
	B43465U4998Q001
B43465U5547T001	
<b>B43467</b>	B43467S4337M002
	B43467S0477Q001
<b>B43550</b>	B43550A1338Q000
	B43550A4158Q000
	B43550A4477Q000
	B43550C1228Q000
	B43550S0108Q003
	B43550S4408T003
	B43550S5158M002
B43550S5478M001	
<b>B43564</b>	B43564A0108M000
	B43564A1228M000
	B43564A1338M000
	B43564A1688M000
	B43564A2108M000
	B43564A2228M000
	B43564A0228M000
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	B43564A6108M000
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	B43564S0478M004
	B43564S5108Q002
	B43564S5228Q004
	B43564S9228M005
	B43564S9228M006
	B43564S9338M001
	B43564S9338M002
	B43564S9398M001
	B43564S9478M003
	B43564S9478M004
	B43564S9568M001
	B43564U4608Q001

Series	Ordering code
<b>B43566</b>	B43566A0108Q000
	B43566A0158Q000
	B43566A4228Q000
	B43566A0477Q000
	B43566A5108Q000
	B43566A5477Q000
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