December 21, 2018

PTN

Withdrawal of EPCOS SMT current sense transformers

To streamline the product range the following types from the B82801A0* series of EPCOS SMT current sense transformers are being withdrawn. Please contact your regional sales contact for alternative parts.

Ordering code withdrawn types
B82801A0134A040
B82801A0135A125
B82801A0185A150
B82801A0214A050
B82801A0304A060
B82801A0333A020
B82801A0404A070
B82801A0743A030
B82801A0824A100

Deadline for last orders: June 30, 2019
Last shipments by: September 30, 2019

Contact Mathias Merkler, MAG TF T PM, Munich

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

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Replacement of EE4.2 SMD Transformer Series

B82801A0* (old) → B82801A1* (new)

TDK Electronics AG
MAG Business Group • TF T PM
Munich, Germany
December 20, 2018

Replacement of Transformer Series B82801A0* with New Series B82801A1*

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- Our EE4.2 SMD Current Sense Transformer series B82801A0* must be withdrawn. As a replacement, we are introducing the new series B82801A1*
- The new series B82801A1* is pin-compatible with the B82801A0* series and the majority of the electrical characteristics are unchanged. Details about mechanical and electrical differences are explained on the following slides.
- Samples of the new B82801A1* series are available. The part numbers

  B82801A1214A050
  B82801A1824A100
  B82801A1185A150

  have already been released for mass production. The remaining types in the B82801A1* series are expected to be released for production in February / March of 2019.

Comparison of of B82801A0* (old) with B82801A1* (new) Mechanical Characteristics

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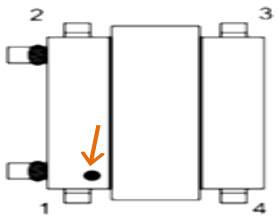
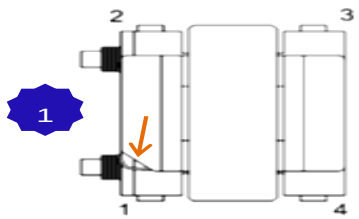
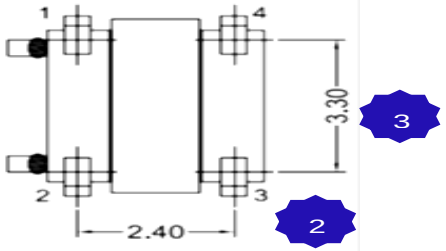
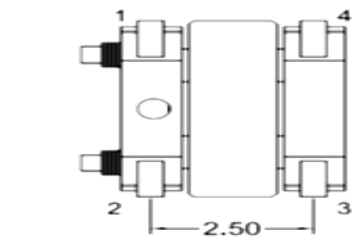
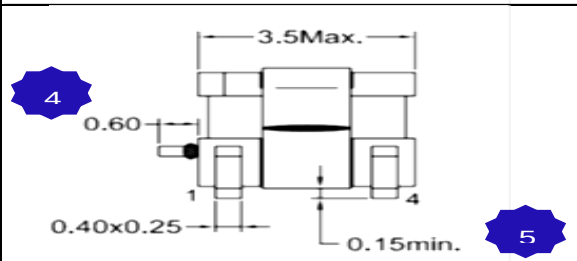
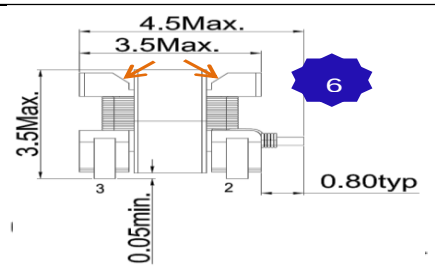
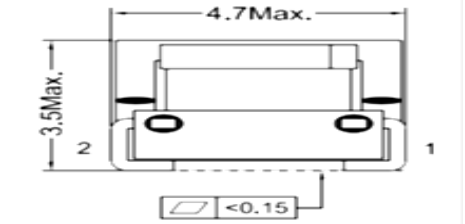
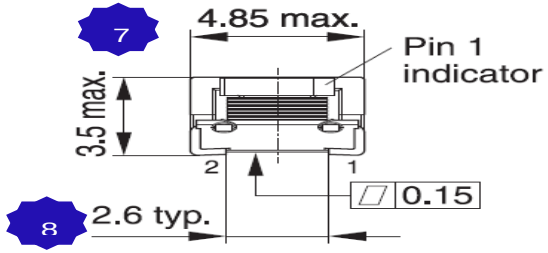
Comparison item	B82801A0*	B82801A1/2* (new)	Remarks
Pin 1 indicator			1. Add pin 1 indicator instead of marking a pin 1 dot.
Pin pitch			2. Pin pitch between Pin(1/2-3/4) is 2.50mm, 2.40 is a mistake in the old datasheet (no product change). 3. Redundant info on pitch between Pin(2/3-1/4) removed from drawing, refer to item 7 below (no product change).
Terminal pin length Chamfer on bobbin Wash area			4. Change 0.60 to 0.80 (laser welding) This leads to overall 4.5max. 5. Change 0.15min to 0.05min 6. Add chamfer to bobbin
Distance between pin end to end			7. Change 4.7Max. to 4.85Max. 8. Add 2.6 typ. dimension to data sheet (no product change)

Comparison of of B82801A0* (old) with B82801A1* (new) Packing and PCB Layout

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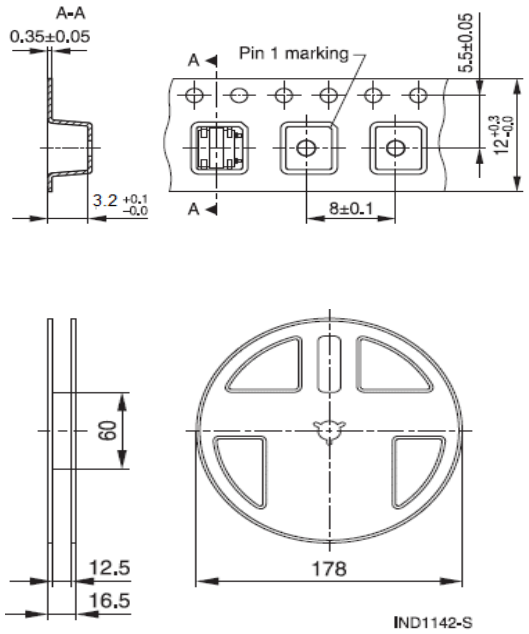
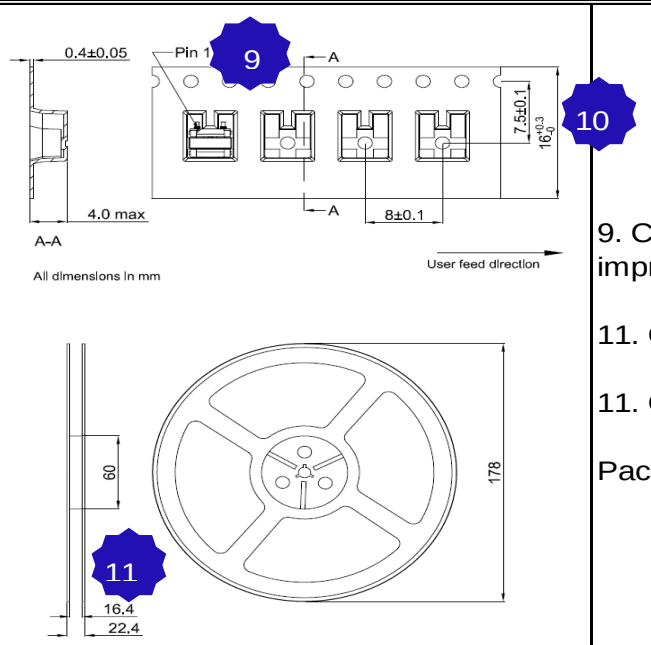
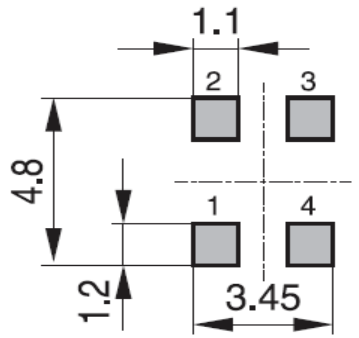
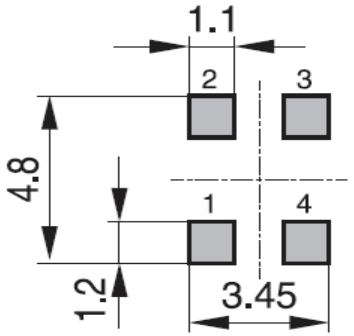
Comparison item	B82801A0*	B82801A1/2* (new)	Remarks
Packaging quantity per reel			9. Change packing orientation in cavity for packing quality improvement. 11. Change bilster tape width to 16 mm from 12 mm. 11. Change net width of reel to 16.4 mm from 12.5 mm. Packing unit unchanged
PCB Layout			12. No change.

Comparison of of B82801A0* (old) with B82801A1* (new) Electrical Characteristics and Ordering Codes

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B82801A0* (old):

L_{min}	Turns ratio	DC resistance R_{max} (mΩ)		Voltage-time product	Recomm. R_T	Ordering code
µH	$N_p : N_s$	primary	secondary	V • µs		
33	1 : 20	2.5	320	5.76	20	B82801A0333A020
74	1 : 30	2.5	800	8.6	30	B82801A0743A030
132	1 : 40	2.5	1300	11.5	40	B82801A0134A040
205	1 : 50	2.5	2200	14.4	50	B82801A0214A050
295	1 : 60	2.5	3600	17.3	60	B82801A0304A060
400	1 : 70	2.5	4600	20.0	70	B82801A0404A070
820	1 : 100	2.5	8700	28.8	100	B82801A0824A100
1280	1 : 125	2.5	13000	36.0	125	B82801A0135A125
1840	1 : 150	2.5	21000	43.2	150	B82801A0185A150

B82801A1* (new):

L_{min}	Turns ratio	DC resistance R_{max} (mΩ)		Voltage-time product at n_s [1]	Recomm. R_T	Ordering code
µH	$n_p : n_s$	primary	secondary	V • µs	Ω	
33	1 : 20	2.5	700	5.76	20	B82801A1333A020
74	1 : 30	2.5	1100	8.6	30	B82801A1743A030
132	1 : 40	2.5	1500	11.5	40	B82801A1134A040
205	1 : 50	2.5	2400	14.4	50	B82801A1214A050
295	1 : 60	2.5	3600	17.3	60	B82801A1304A060
400	1 : 70	2.5	4600	20.0	70	B82801A1404A070
820	1 : 100	2.5	9700	28.8	100	B82801A1824A100
1280	1 : 125	2.5	15000	36.0	125	B82801A1135A125
1840	1 : 150	2.5	22700	43.2	150	B82801A1185A150

1) The maximum volt-sec rating limits the peak flux density to 200 mT when used in a unipolar drive application. For bi-polar drive applications, a maximum volt-sec of two times is acceptable.

Electrical characteristics unchanged, **except for secondary DC resistance**

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