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 EMC & Inductive Solutions
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Product / Process Change Notification (PCN)

- Major change
 Minor change

PCN #: PCN_UtCST_20200805

Affected Series: WE-CST; 749251xxx

PCN Date: May 05, 2020

Effective Date: August 05, 2020

Change Category:

- Equipment / Location
 General Data
 Material
 Process
 Product Design
 Shipping / Packaging
 Supplier
 Software

Contact: Product Management

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Data Sheet Change:

Yes No

Attachment:

Yes No

DESCRIPTION AND PURPOSE OF CHANGE:

With the aim of an extended product applicability, Würth Elektronik will be changing the material of the current sense clip and changing the adhesive used on the product. The change in the current sense clip's material will increase the rated current to 20 Amps. The clip change will also lower the resistance of the clip. The change in the adhesive used on this product will now make the product Halogen free.

In line with internal standardization, Würth Elektronik will be removing the tolerance on the turns ratio test. The number of turns in the turns ratio is an exact number ensured by use of CNC equipment capable of controlling turn counts and terminations without manual intervention. Due to the large disparity in the turns ratio and hence the impedance ratio, voltage ratio testing can vary vastly depending on test method and equipment used. Würth will control the exact turns with CNC and verify per their standard voltage ratio methods which may vary from the customer method.

Because of a database mismatch, Würth Elektronik will change the location of the pin 1 dot on its datasheet as well. The pin 1 dot will be moved from the core to the clip.

All of these changes will affect the part numbers shown below.

749251020	749251040	749251060	749251100
749251030	749251050	749251070	749251125

There will be no change in form, fit, quality or reliability of the product.

DETAIL OF CHANGE:

The previous current sense clip was made from stainless steel and will be changed to C1100 material. This change will affect the following electrical specifications shown below. The adhesive on this product was also changed from 1006A/B to TH100A/B and the changes on the datasheet are shown below. The removal of the turns ratio tolerance is also shown below. In the red boxes are the specifications before the change and in the green boxes will be the new specifications and the additional specifications that were added to the datasheet.

Before Change:**Electrical Properties:**

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	10 kHz/ 100 mV	80	µH	min.
Rated Current	I_R	$\Delta T = 40 \text{ K}$	10	A	typ.
DC Resistance 1	R_{DC}	@ 20 °C	6	mΩ	max.
DC Resistance 2	R_{DC}	@ 20 °C	0.2	Ω	max.
Turns Ratio	n	N1 : N2	1 : 20		±3%
Voltage-µSecond	$\int U dt$	$U_{ref} * DC_{max}/f$	10	µVs	max.
Rated Voltage	U_R		80	V	
Insulation Test Voltage	U_T	3 mA/ 1 s	500	V (AC)	

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [(EC)1907/2006]

After Change:**Electrical Properties:**

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	N2/ 10 kHz/ 100 mV	80	µH	min.
Rated Current	I_R	N1/ $\Delta T = 40 \text{ K}$	20	A	typ.
DC Resistance 1	R_{DC}	@ 20 °C	0.75	mΩ	max.
DC Resistance 2	R_{DC}	@ 20 °C	0.2	Ω	max.
Turns Ratio	n	N1 : N2	1 : 20		
Voltage-µSecond	$\int U dt$	N2/ unipolar waveform	10	µVs	max.
Frequency Range	f		Up to 1	MHz	
Rated Voltage	V_R		80	V	
Insulation Test Voltage	V_T	N1 => N2	500	V (AC)	

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACH Approval	Conform or declared [IEC]1907/2006]
Halogen Free	Conform [JEDEC JS709B]
Halogen Free	Conform [IEC 61249-2-21]

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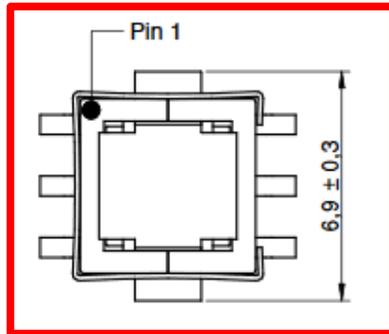
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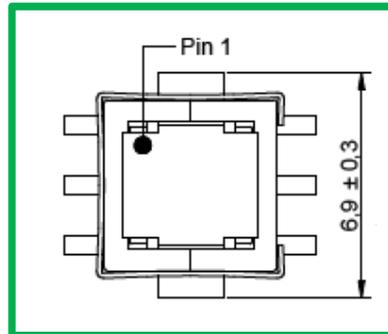


The pin 1 dot was previously located on the core of the product (shown below in red) and will be moved to the clip (shown below in green).

Before Change:



After Change:



RELIABILITY / QUALIFICATION SUMMARY:

- Five Time Reflow (J-STD-020C)
- High Temperature Exposure Storage (MIL-STD-202 Method 108)
- Thermal Shock (MIL-STD-202 Method 107)
- Vibration (MIL-STD-202 Method 204)