



Product/Process Change Notice (PCN)

- ☒ Major Change
☐ Minor Change

PCN Number: PCN_VarVD_20250210

Affected Series: WE-VD

Affected Part Number: see table below

PCN Date: 2024-11-11 (YYYY-MM-DD)

Effective Date: 2025-02-10 (YYYY-MM-DD)

Change Category:

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

Contact: Product Management

Phone: +49 (0) 7942 - 945 5001

Fax: +49 (0) 7942 - 945 5179

E-Mail: pcn.eisos@we-online.com

Datasheet Change:

- ☒ Yes ☐ No

Attachment:

- ☐ Yes ☒ No

DESCRIPTION OF CHANGE:

To meet current customer demands, Würth Elektronik eiSos will increase the operating temperature to 105 °C.

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

Affected part numbers see details of change.

DETAILS OF CHANGE:

In the past the limiting factor was that the used Epoxy wasn't released for 105 °C. Now the Epoxy is released at UL and VDE for 105 °C and therefore we qualified also our products until 1000 V_{rms} for this temperature.

The parts are still certified at UL (E332875) and VDE (40016998 and 40016986). At UL we keep now only the AC approval for 105 °C parts.

Before Change		After Change	
General Properties:		General Properties:	
Operating Temperature	-40 up to +85 °C	Operating Temperature	-40 up to +105 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH	Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Moisture Sensitivity Level (MSL)	1	Moisture Sensitivity Level (MSL)	1
Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently		Test conditions of Electrical Properties: +20 °C, 33 % RH if not specified differently	



Affected part numbers:

820411102	820423011S1	820445001ES1	820511102	820523511B	820551102
820411111	820423211	820445111E	820511111	820523811	820551311
820411311	820423211S1	820445511E	820511311	820523811B	820551406
820411406	820423211S2	820445511ES1	820511406	820524006	820551411
820411411	820423211S3	820445511ES2	820511411	820524211	820551511
820411511	820423506	820446001E	820511511	820524211B	820551701
820411701	820423511	820446211E	820511701	820524611	820551711
820411711	820423511B	820446211ES1	820511711	820524811	820552001
820412001	820423811	820446211ES2	820511711S1	820525111	820552311
820412311	820423811B	820446211ES3	820512001	820525511	820552311S1
820412501	820423811S1	820446811E	820512111	820526211	820552501
820412511	820423811S2	820446811ES3	820512311	820526211S1	820552511
820412511S1	820423811S3	820446811ES4	820512501	820526811	820552711
820412711	820424006	820446811ES5	820512511	820526811S1	820552711S1
820412711S1	820424211	820447501E	820512711	820526811S2	820552711S2
820412711S10	820424211B	820449501E	820512711S3	820529501	820553001
820412711S2	820424211S1	820451311	820512711S4	820541102	820553011
820412711S3	820424611	820451411	820512711S6	820541111	820553211
820412711S4	820424811	820451511	820513001	820541311	820553501
820412711S5	820425111	820451701	820513011	820541406	820553511
820412711S6	820425111S1	820451711	820513011S1	820541411	820553811
820412711S7	820425511	820452001	820513011S2	820541511	820553811S1
820412711S8	820425511S1	820452311	820513011S3	820541701	820554001
820412711S9	820426211	820452501	820513211	820541711	820554211
820413001	820426811	820452511	820513211S1	820542001	820554611
820413011	820426811S2	820452711	820513501	820542111	820554611S1
820413011S1	820426811S3	820453001	820513511	820542311	820555001
820413011S2	820429501	820453011	820513811	820542311S1	820556001
820413011S3	820441111E	820453211	820513811S1	820542311S2	820557501
820413011S4	820441111ES1	820453501	820514001	820542501	820559501
820413211	820441111ES2	820453511	820514211	820542511	820559501S1
820413501	820441311E	820453811	820514611	820542711	820571102
820413511	820441411E	820454001	820514611S1	820542711S1	820571111
820413811	820441511E	820454211	820514611S2	820542711S2	820571311



820414001	820441711E	820454611	820514811	820542711S3	820571406
820414211	820442111E	820455001	820515001	820542711S4	820571411
820414611	820442311E	820456001	820515111	820543001	820571511
820414811	820442511E	820457501	820515511	820543001S1	820571701
820415001	820442711E	820459501	820515511B	820543011	820571701S1
820415001S1	820442711ES2	820471102	820516001	820543211	820571711
820415111	820442711ES3	820471111	820516001S1	820543211S1	820572001
820415111S1	820442711ES4	820471311	820516211	820543211S2	820572111
820415511B	820442711ES5	820471406	820516211B	820543211S3	820572311
820415511S1	820442711ES6	820471411	820516811	820543501	820572501
820416001	820443011E	820471511	820516811B	820543511	820572511
820416211B	820443011ES1	820471701	820516811S1	820543511S1	820572711
820416811B	820443011ES2	820471711	820517501	820543811	820572711S1
820417501	820443211E	820472001	820519501	820543811S1	820572711S2
820419501	820443211ES1	820472311	820521311	820544001	820572711S3
820421311	820443211ES2	820472501	820521402	820544211	820572711S4
820421402	820443211ES3	820472511	820521411	820544611	820573001
820421411	820443211ES5	820472711	820521511	820544611S2	820573011
820421511	820443211ES6	820472711S1	820521702	820544811	820573011S1
820421702	820443501	820473001	820521711	820545001	820573211
820421711	820443511E	820473011	820521711S1	820545111	820573501
820421711S1	820443511ES1	820473211	820522002	820545511	820573511
820422002	820443811E	820473211S1	820522311	820545511B	820573811
820422311	820443811ES1	820473501	820522506	820545511S2	820574001
820422506	820443811ES2	820473511	820522511	820545511S4	820574211
820422511	820443811ES3	820473811	820522511S1	820545511S5	820574211S1
820422711	820444001	820474001	820522711	820545511S6	820574611
820422711S1	820444211E	820474211	820522711S1	820546001	820574611S2
820422711S2	820444611E	820474611	820523006	820546211	820575001
820422711S3	820444611ES1	820475001	820523011	820546211S1	820576001
820422711S4	820444611ES2	820475001S1	820523211	820546811	820576001S1
820422711S5	820444611ES3	820476001	820523211S1	820546811S2	820576001S2
820423006	820444811E	820477501	820523506	820547501	820576001S3
820423011	820445001E	820479501	820523511	820549501	820577501
				820579501S1	820579501



RELIABILITY / QUALIFICATION OF CHANGE:

An additional reliability testing was performed and approved. Qualification according to AEC-Q200 table 10.
 Additional details of the tests can be found in the table below:

Test Item	Sample size	Reference	Test conditions	Acceptance
Thermal Shock	30	IEC 60068-2-14 Test Na	-40 °C (30 min) until 105 °C (30 min) Transfer time max. 3 minutes, 5 cycles	Approved
Humidity (Steady State)	30	MIL-STD-202-103	40±5 °C, 95 %RH, 500 h, max DC voltage	Approved
Operational Life	30	MIL-STD-202-108	105 °C, 1000 h, max DC voltage	Approved
Terminal Strength	30	MIL-STD-202-211	Test condition A: hang a 2.27 kg weight under the terminal, maintain for 5-10 seconds	Approved
			Test condition C: hang a 227 g weight under the terminal, bend it three times. 3 seconds per bend.	
Vibration	30	MIL-STD-202-204	15-2000 Hz, 5 g's for 20 minutes, 12 cycles each of 3 orientations.	Approved
Solderability	30	JESD22-B102	Steam Aging 4 h @ 93 °C Dip & Look @ 245 °C	Approved
Electrical Transient Conduction	30	IEC 61000-4-5	Peak Current: I_{peak} Number of Pulses: 2 $ \Delta V/V (1 \text{ mA}) \leq 10 \%$ (measured in direction of surge current)	Approved
Voltage Proof	30	IEC 61051-1	1. 55±2 °C and relative humidity not exceeding 20 % for 24±4 h in an oven 2. 100±5 °C for 96±4 h in an oven 3. Metal ball method: The complete varistor shall be placed in a container holding 1,6 mm ± 0,2 mm diameter metal balls such that only the terminations of the varistor are protruding. An electrode shall be inserted between the metal balls.	Approved