## **Material Data Sheet**

## PTC

Product Class	s PTC Inrush current limiter B594xxU1* / B5975xU* 22.03.2021						
Date			-				
IMDS ID if available							
Version	5.14		-				
Product Part (IMDS: semi component)	Material Class (IMDS: Material)	Material (Classification) VDA 231	Substance	TMPS**) [wt%]	CAS if applicable	typical mass of material [wt-%]	Traces see 1)
Active Part	Ceramic	3B	Ba-titanates Pb-titanates Sr-titanates Ca-titanates others*)	69 15 10 5 1	12047-27-7 12060-00-3 12060-59-2 12049-50-2	78,33	
Termination	Noble Metal	1D7	Ag or Cu	100 100	7440-22-4 7440-50-8	0,018	
	Heavy Metal Heavy Metal	1C14 1C2	Ni Cr	100 100	7440-02-0 7440-47-3	0,006	
Solder	Heavy Metal	1C15	Pb +) Sn Ag	92 5 3	7439-92-1 7440-31-5 7440-22-4	1,07	
Leads	Iron & Steel incl. Heavy Metal Heavy Metal	1A 1C12 1C8	Fe Cu Sn	100 100 100	7439-89-6 7440-50-8 7440-31-5	6,97 3,88 0,39	
Coating	Organic, solid	4B1	Silicone Lacquer	100		5,5	
Shrink tube	Organic, solid	2A	Ethylene-vinyl acetate copolymer polyethylene Magnesium Hydroxide Phosphorus Silicate C73H108O12 others *)	30 20 25 10 10 2 3	24937-78-8 9002-88-4 1309-42-8 7723-14-0 1327-36-2 6683-19-8	3,83	
					Sum of total	100	
sizes [ mm] 17 x 9 17 x 9 17 x 9 17 x 9 17 x 9	weight range [ g ] 5,3 5,2 5,2 5,6	material numbers B59412U1130B* B59441U1130A0xx B59451U1130* B59452U1135A*	<b>sizes [ mm]</b> 13 x 6 14 x 8,5	weight range [ g ] 3,8 3,8	material numbers B59751U0120A040 B59753U0120B110		
Not part of a Product							

## PTC



	PTC Inrush current limiter B594xxU1* / B5975xU*
Date	22.03.2021
IMDS ID if available	
Version	5.14

Contact	Ronner Christoph		Important remarks:			
Division	PPD Q QM		1) The declaration limit is 0.1% as defined by IEC 62474 (IEC PAS 61906). Traces are			
Address	8530 Deutschlandsber	rg, AUSTRIA	product parts, substances etc. that are below a percentage of 0.1 % by weight, if not otherwise			
	Tel: +43 3462 800 2139	mailto: functional.ppd-epqm.db@tdk-electronics.tdk.com	regulated. 2) This Material Data Sheet contains typical values of the respective products set forth			
*) others: not declarable or prohibited substances acc. GADSL			herein. We expressly point out that all values and statements contained herein are based on our			
**) typical mass percentage of substance			best present knowledge and cannot be regarded as binding statements or binding product			
+) listed in the Candidate list of Substances of Very High Concern acc. to Regulation 1907/2006/EC			specifications, unless otherwise explicitly agreed in writing. TDK ELECTRONICS AG AND ITS AFFILIATES HEREBY EXPRESSLY DISCLAIM ANY REPRESENTATION OR WARRANTY, WHETHER EXPRESS, IMPLIED OR STATUTORY, WITH REGARD TO THE STATEMENTS AND VALUES CONTAINED HEREIN, INCLUDING BUT NOT LIMITED TO ANY REPRESENTATION OR WARRANTY OF MERCHANTABILITY OR SUITABILITY FOR ANY PURPOSE.			

The products set forth herein are "RoHS-compatible". RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8<sup>th</sup>, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

## RoHS - Exemptions for the Product Class / Product according to Annex III: ( 2 valid D not valid )

no exemptions;

Exemption 6 (a): Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight;

Exemption 6 (b): Lead as an alloying element in aluminium containing up to 0,4 % lead by weight;

Exemption 6 (c): Copper alloy containing up to 4 % lead by weight;

Exemption 7 (a): Lead in high melting temperature type solder (i.e. lead-based alloys containing 85 % by weight or more lead);

Exemption 7 (c)-1: Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound;

Exemption 7 (c)-II: Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher;

Exemption 7 (c)-III: Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC;

Exemption 15: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages;

Other Exemption than above ...