

Aluminium Electrolytic Capacitor

Material Data Sheet

Product Class:	Single-ended capacitors	
Date	2011.10.11	
IMDS ID if available		
Version:	06	

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	Light Metals	1B	Aluminium	100	7429-90-5	21,9	
	Acids, Bases, Salts	6F	Ethylene glycol or Gamma-butyrolactone	80	107-21-1 96-48-0	15,2	
			Carboxylic acid	10	-	1,9	
			Other	10	-	1,9	
	Thermoplastics	2A	Polypropylene	100	-	0,1	
Paper, Cardboard	5C	Cellulose	100	9004-34-6	9		
Encapsulation	Light Metals	1B	Aluminium	100	7429-90-5	22,4	
	Elastomer	2B	Butyl rubber or EPDM rubber	100	9010-85-9 25038-36-2	15,6	
	Thermoplastics	2A	Polyvinyl chloride or Polyethylene terephthalate	100	9002-86-2 25038-59-9	2	
Termination	Iron and Steel	1A	Iron	100	7439-89-6	7	
	Heavy Metals	1C	Copper	100	7440-50-8	1,8	
	Heavy Metals	1C	Tin	100	7440-31-5	1,2	
Sum in total:						100	

sizes [mm]	weight range [g]	part numbers	weight range [g]	sizes [mm]	part numbers	sizes [mm]	weight range [g]	part numbers
4 x 5	0,12		1,43	10 x 12,5		18 x 20	8,1	B41827 B43827 B41828
5 x 5	0,18		1,7	10 x 16		18 x 25	9,8	B43828 B41002 B41022
6,3 x 5	0,27		2,5	10 x 20		18 x 31,5	13,95	B41004 B43004 B41041
6,3 x 11	0,60		3,0	10 x 25		18 x 35,5	14,5	B43041 B42022 B43008
4 x 7	0,22		3,56	10x30/ 10x31,5		18 x 40	16,3	B41044 B41046 B41048
5 x 7	0,30		2,87/ 3,2	12,5x15/ 12,5x16		18 x 45	18,4	B43044 B43081 B43082
6,3 x 7	0,42		3,6	12,5 x 20		20 x 35	19,0	B43083 B43084 B43086
8 x 7	0,63/ 0,75		4,3	12,5 x 25		20 x 40	19,5	B43088 B41061 B42002
5 x 11	0,396		5,65	12,5x30/ 12,5x31,5		22 x 35	22,5	B42003 B42004 B42021
6,3 x 15	1,05		6,04	12,5x35/ 12,5x35,5		22 x 40	24,0	
8 x 11,5	0,95		6,43	12,5 x 40		22 x 45	25,0	
8 x 15	1,22		5,8	16 x 20		22 x 50	29,5	
8 x 20	1,56		6,1	16 x 25				
			8,3	16 x 31,5				
			9,1	16x35/ 16x35,5				
			11,6	16 x 40				

Not part of a Product Class		Important remarks: 1) The declaration limit is 0.1% as defined by IEC PAS 61906. Traces are product parts, substances etc. that are below a percentage of 0.1 % by weight, if not otherwise regulated. 2) This Material Data Sheet contains typical values of the respective products set forth herein. We expressly point out that all values and statements contained herein are based on our best present knowledge and cannot be regarded as binding statements or binding product specifications, unless otherwise explicitly agreed in writing. EPCOS 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.
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*) others: (not declarable or prohibited substances acc. GADSL) **) typical mass percentage of substance		

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 8th, 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: (valid 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)-I: 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