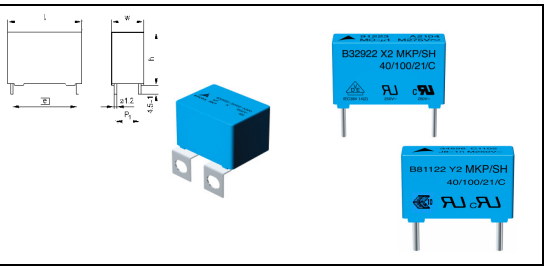
MKP Film Capacitors (Boxed)

Material Data Sheet

Product Class	**Film Capacitors** **B3265x / B3262x /B3267x / B3277x/ B3292x / B3293x / B3202x / B3291x / B81xxx / B3279x (*1)**
Date	**14/10/2011**
IMDS ID if available	----------
Version	**5.01 (07/2011)**



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 metal or Heavy metal	1b	Al or Zn (depending on specific type)	100	7429-90-5 (Al) 7440-66-6 (Zn)	6 (if Al) 10 (if Zn)	
	Heavy metal	1c	Sn	97	7440-31-5	11 (if Al) 7 (if Zn)	
	Heavy metal	1c	Cu	3	7440-50-8	1	
	Thermoplastic	2a	PP	100	9003-07-00	20	
Encapsulation	Organic, solid	5b	Epoxy	50		11	
	Inorganic, solid	5a	Al $(OH)_3$	50	21645-51-2	11	
	Thermoplastic	2a	PBT	84	26062-94-2	26	
	Flame retardant	Not available	N,N Ethylene-bis(tetrabromophthalimide)	12	32588-76-4	5	
	Inorganic, solid	5a	Sb_2O_3	4	1309-64-4	1	
Termination	Heavy metal or Iron and Steel incl. Alloys	1c or 1a	Cu or Fe/Cu (depending on specific type)	92 or 90/2		7.5 or 7/0.5	
	Heavy metal	1c	Sn	8	7440-31-5	0.5	

(*1): Substitute the x by number indicated in part numbers **Sum in total**: 100

sizes [mm]	weight range [g]	part numbers	sizes [mm]	weight range [g]	part numbers
10,0 x 3,0 x 8,0	0,4	x=0	31,5 x 14,0 x 24,5	16,0	x=4
13,0 x 4,0 x 9,0	0,7	x=1	41,5 x 18,0 x 32,0	29,0	x=6
18,0 x 9,0 x 17,5	4,5	x=2	57.5 x 35.0 x 50.0	90.0	x=8
26,5 x 11,0 x 20,5	9,0	x=3			

Not part of a Product Class

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*) others: .(not declarable or prohibited substances acc. GADSL)

**) typical mass percentage of substance

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.

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 .....

