

SAW Components

Material Data Sheet

Product Class:	SAW Filters – SIP5D Plastic technology	
Date	31-January-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	Ceramic	3B	LiTaO ₃	100	12031-66-2	18.1	
	Metal	1B	Al	100	7429-90-5	0.1	
	Polymer	2A	Epoxy	65.5	25928-94-3	0.3	
		4D	BaSO ₄	34.5	7727-43-7		
	Polymer	4D	Magnesium Silicate	26.3	1343-88-0	0.4	
		2A	Polyacrylate (PMMA)	73.7	9011-14-7		
Encapsulation	Metal	1C	Cu	97.8	7440-50-8	36.2	
			Fe	1.6	7439-89-6		
			Ag	0.6	7440-22-4		
	Metal	1C	Metal Oxide	2.1		44.2	
	Anorganic, solid	4A	Silica	72.1	60676-86-0		
	Duromer	2C	Epoxy	25.8			
	Thermoplastic	2A	Phenolic plastic				
Termination	Metal	1C	Ag	16.7	7440-22-4	0.6	
		1C	Sn	83.6	7440-31-5		
Internal connection	Metal	1C	Au	100	7440-57-5	0.1	
Sum in total:						100	

sizes: L x W x H [mm]	Approx. weight [mg]	part numbers	sizes: L x W x H [mm]	Approx. weight [mg]	part numbers	sizes: L x W x H [mm]	Approx. weight [mg]	part numbers
13.7x4.8x2.4	445	B39*-N351*-N301						
13.7x4.8x2.4	455	B39*-N351*-X500						
13.7x4.8x2.4	445	B39*-X6922-N201						
13.7x4.8x2.4	445	B39*-X693*-N201						
13.7x4.8x2.4	445	B39*-X693*-X400						
13.7x4.8x2.4	445	B39*-X694*-N201						
13.7x4.8x2.4	445	B39*-X694*-X400						

Range of ordering code (* -wildcard) for all products within this range



Not part of a Product Class		
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**) 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.
<p>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.</p> <p>RoHS - Exemptions for the Product Class / Product according to Annex III: (<input checked="" type="checkbox"/> valid <input type="checkbox"/> not valid)</p> <p><input checked="" type="checkbox"/> no exemptions;</p> <p><input type="checkbox"/> 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;</p> <p><input type="checkbox"/> Exemption 6 (b): Lead as an alloying element in aluminium containing up to 0,4 % lead by weight;</p> <p><input type="checkbox"/> Exemption 6 (c): Copper alloy containing up to 4 % lead by weight;</p> <p><input type="checkbox"/> Exemption 7 (a): Lead in high melting temperature type solder (i.e. lead-based alloys containing 85 % by weight or more lead);</p> <p><input type="checkbox"/> 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;</p> <p><input type="checkbox"/> Exemption 7 (c)-II: Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher;</p> <p><input type="checkbox"/> Exemption 7 (c)-III: Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC;</p> <p><input type="checkbox"/> Exemption 15: Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages;</p> <p><input type="checkbox"/> Other Exemption than above</p>		