



Electronic Parts and Components

Varistor

Material Data Sheet

Product Family Name	Disk Varistor B72220S*
Date	13.02.2007
Version	2.0

Construction Element	Material group	Materials	CAS if applicable	mass [weight-%]			Sum [%]	Traces
				min	typical	max		
Active Part							45	
	Ceramics	ZnO(89%) Bi ₂ O ₃ (4,5%) Sb ₂ O ₃ (2,5%) Co ₃ O ₄ (1%) NiO(1%) Dopants(2%)	1314-13-2 1304-76-3 1309-64-4 1308-06-1 1313-99-1	41	45	49		
Termination							39	
	Metal	Ag	7440-22-4		0,5			
	Metal / Solder	Sn(96,5%) Ag(3%) Cu(0,5%)	7440-31-5 7440-22-4 7440-50-8	4	4,5	5		
	Metal / Leads	Cu(96%) Sn(4%)	7440-50-8 7440-31-5	31	34	37		
Encapsulation							16	
	Organic Polymer	SiO ₂ (49%) Epoxy Resin(35%) Brominated epoxy(12%) Sb ₂ O ₃ (2,5%) Additives(1,5%)	60676-86-0 25068-38-6 40039-93-8 1309-64-4	15	16	17		
						total:	100	

Case sizes:	Diameter [mm]	Approx. weight [g]
S20	21.5	2.7 – 15.7

Company:	EPCOS OHG	Important remarks: 1) Traces are product parts, substances etc. that are below a percentage of 0.1 % by weight, if not otherwise regulated (see note no. 2). 2) A list of the (legal) "... restrictions on substances ..." or materials is available at internet address of the EICTA organisation (C4E List) 3) All statements herein are based on our present knowledge. If our products are used properly, there are no risks to human beings and/or the environment.
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The component is RoHS-compatible, what means compatible with the requirements of the directives listed below and with the requirements of the provisions which will result from transformation of the directives into national law to the extent such provisions reflect the Regulations. Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive 2002/95/EC"); Commission Decision of 18 August 2005 amending Directive 2002/95/EC (2005/618/EC); Commission Decision of 13 October 2005, of 21 October 2005, of 21 February 2006 amending the Annex to Directive 2002/95/EC (2005/717/EC; 2005/747/EC, 2006/310/EC).

***) exempted by Annex 2002/95/EC (RoHS):**

5 Lead in glass of electronic components

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

7 (c) Lead in electronic ceramic part (e.g. piezoelectronic devices)