

MATERIAL DECLARATION SHEET

BOURNS®

Material Number	BVRA1206 Series			
Product Line	Varistor			
Compliance Date	2025/08/08			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\ Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Ceramic parts	Main body : Metal Oxide Layer	14.2532	Zinc oxide	1314-13-2	100.00%	79.85%	79.85%
		Others additives in Metal Oxide Layer	1.1103	Bismuth(III) oxide	1304-76-3	46.55%	2.90%	6.22%
				Manganese(II, III) oxide	1317-35-7	6.68%	0.42%	
				Nickel Oxide	1313-99-1	20.05%	1.25%	
				Cobalt(II,III) oxide	1308-06-1	8.91%	0.55%	
				Antimony Trioxide	1309-64-4	6.68%	0.42%	
				Chromium(III) oxide	1308-38-9	11.13%	0.69%	
		Sintering Flux in Metal Oxide Layer	0.4159	Silicon dioxide	7631-86-9	4.80%	0.11%	2.33%
				Aluminium oxide	1344-28-1	1.50%	0.03%	
				Boron	7440-42-8	8.90%	0.21%	
				Zinc oxide	1314-13-2	12.30%	0.29%	
				Sodium Oxide	1313-59-3	1.30%	0.03%	
				Bismuth(III) oxide	1304-76-3	71.20%	1.66%	
		Internal Electrode	1.1120	Silver	7440-22-4	89.50%	5.58%	6.23%

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				Palladium	7440-05-3	10.00%	0.62%	
				Ceramic Powder	13463-67-7	0.50%	0.03%	
		Overcoat	0.0571	Epoxy resin	182697-62-7	75.00%	0.24%	0.32%
				Carbon black	1333-86-4	15.00%	0.05%	
				Talc	14807-96-6	10.00%	0.03%	
		End Termination-1	0.2570	Silver	7440-22-4	95.00%	1.37%	1.44%
				Glass and Metal Oxide (B,Ba,Zn,etc.)	65997-17-3	5.00%	0.07%	
		End Termination-2	0.4837	Silver Atom	7440-22-4	89.40%	2.42%	2.71%
				Bisphenol-A Epichlorohydrin resin	25068-38-6	4.90%	0.13%	
				Polyglycidyl ether of o-cresol-formaldehyde novolac	29690-82-2	3.30%	0.09%	
				Nickel Metal	7440-02-0	1.40%	0.04%	
				Graphite	7782-42-5	1.00%	0.03%	
2	External electrode	External electrode_Ni	0.0643	Nickel	7440-02-0	100.00%	0.36%	0.36%
		External electrode_Sn	0.0964	Tin	7440-31-5	100.00%	0.54%	0.54%
		Total weight	17.8500					

This Document was updated on: 2025/08/08

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.