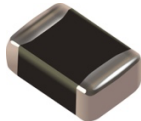


# MATERIAL DECLARATION SHEET



Material Number	BVR1812 Series			
Product Line	Varistor			
Compliance Date	2023/07/26			
RoHS Compliant	Yes	MSL	1	

No.	Construction Element(subpart)	Homogeneous Material	Material weight [mg]	Homogeneous Material\	CASRN	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
				Substances	if applicable			
1	Ceramic body	Main body	98.8944	Zinc oxide	1314-13-2	100.00%	82.55%	82.55%
		Sintering Flux in Metal Oxide Layer	2.1324	Glass	65997-17-3	55.00%	0.98%	1.78%
				Lead in glass	7439-92-1	45.00%	0.80%	
		Internal Electrode	9.0025	Silver	7440-22-4	80.20%	6.03%	7.51%
				Palladium	7440-05-3	19.80%	1.49%	
		Overcoat	0.3235	Polymer	64742-94-5	100.00%	0.27%	0.27%
		Others additives in Metal Oxide Layer	5.374	Bismuth Trioxide	12048-50-9	46.55%	2.09%	4.49%
				Manganese(III) oxide	1317-34-6	6.68%	0.30%	
				Nickel Oxide	1313-99-1	20.05%	0.90%	
				Cobalt(II,III) oxide	1308-06-1	8.91%	0.40%	
Antimony Trioxide	1309-64-4			6.68%	0.30%			
Chromium(III) oxide	1308-38-9	11.13%	0.50%					
End Termination	2.995	Silver	7440-22-4	100.00%	2.50%	2.50%		
2	External electrode	External electrode	1.0782	Nickel	7440-02-0	40.00%	0.36%	0.90%
				Tin	7440-31-5	60.00%	0.54%	

# MATERIAL DECLARATION SHEET

**BOURNS®**

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Total weight	119.8
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**This Document was updated on: 2023/07/26**

**Important remarks:**

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