

MATERIAL DECLARATION SHEET



Material Number	1280-3S series			
Product Line	SPD			
Compliance Date	Mar 2025			
RoHS Compliant	Yes	MSL	1	

NO	Construction Element (subpart)	Homogeneous Materials	Material weight [g]	Homogeneous Material	CASRN	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt · (%)
				Substances	if applicable			
1	Varistor	Ceramic	102.9000	Zinc oxide	1314-13-2	99.000%	30.602%	30.911%
				Bismuth oxide	1304-76-3	0.200%	0.062%	
				Cobalt oxide	1308-04-9	0.200%	0.062%	
				Antimony oxide	1332-81-6	0.200%	0.062%	
				Manganese oxide	1317-34-6	0.100%	0.031%	
				Titanium oxide	13463-67-7	0.050%	0.015%	
				Boron oxide	1303-86-2	0.100%	0.031%	
				Chromium Oxide	1118-57-3	0.100%	0.031%	
				Silver nitrate	7761-88-8	0.050%	0.015%	
		Termination	3.3300	Silver	7440-22-4	100.000%	1.000%	1.000%
		Encapsulating material	6.6000	Glycidyl terminated bisphenol A epoxy chloropropane copolymer	25036-25-3	45.700%	0.906%	1.983%
				Silica	60676-86-0	31.200%	0.619%	
				Titanium dioxide	13463-67-7	2.800%	0.056%	
				Trimellitic anhydride	552-30-7	3.300%	0.065%	
				Basic copper carbonate	12069-69-1	3.500%	0.069%	
Zirconium silicate	10101-52-7			7.000%	0.139%			

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				Misc not to declare	---	6.500%	0.129%	
		Terminal	21.5784	Copper	7440-50-8	99.970%	6.480%	6.482%
				Traces not to declare	---	0.030%	0.002%	
		Nickel plate	0.0108	Nickel	7440-22-40	100.000%	0.003%	0.003%
		Silver plate	0.0108	Silver	7440-02-0	100.000%	0.003%	0.003%
2	Plastic shell	PBT	95.8000	PBT resin	26062-94-2	55.000%	15.828%	28.778%
				Halogen flame retardant	68928-70-1	13.000%	3.741%	
				Antimony oxide	1309-64-4	5.000%	1.439%	
				Glass fiber	65997-17-3	20.000%	5.756%	
				Misc not to declare	---	7.000%	2.014%	
3	Spring	Spring	0.9000	Iron	7439-89-6	98.000%	0.265%	0.270%
				Manganese	7439-96-5	0.650%	0.002%	
				Carbon	7440-44-0	0.650%	0.002%	
				Silicon	7440-21-3	0.200%	0.001%	
				Misc not to declare	---	0.500%	0.001%	
4	Switch	PPA	4.2000	Modified hexanediamide terephthalate	25776-72-1	65.000%	0.820%	1.262%
				Glass fiber	65997-17-3	32.000%	0.404%	
				Processing aids	1333-86-4	3.000%	0.038%	
		SUS304	0.3000	Iron	7439-89-6	70.000%	0.063%	0.090%
				Nickel	7440-02-0	10.000%	0.009%	
				Chromium	7440-47-3	18.000%	0.016%	
				Manganese	7439-96-5	2.000%	0.002%	
		SUS301	0.3000	Iron	7439-89-6	72.000%	0.065%	0.090%
				Nickel	7440-02-0	8.000%	0.007%	
				Chromium	7440-47-3	18.000%	0.016%	
				Manganese	7439-96-5	2.000%	0.002%	
		Copper part	0.0600	Copper	7440-50-8	61.500%	0.011%	0.018%
				Zinc	7440-66-6	38.465%	0.007%	

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				Phosphorus	7723-14-0	0.006%	0.000%	
				Lead	7439-92-1	0.005%	0.000%	
				Iron	7439-89-6	0.020%	0.000%	
				Misc not to declare	---	0.005%	0.000%	
5	Copper Electrode	Copper part	66.7000	Copper	7440-50-8	91.550%	18.344%	20.037%
				Tin	7440-31-5	8.000%	1.603%	
				Zinc	7440-66-6	0.300%	0.060%	
				Phosphorus	7723-14-0	0.150%	0.030%	
6	Low-temperature alloys	Alloys Solder	3.0000	Tin	7440-31-5	42.000%	0.379%	0.901%
				Bismuth	7440-69-9	58.000%	0.523%	
7	Screw	SUS304 Part	27.2000	Carbon	7440-44-0	0.070%	0.006%	8.171%
				Manganese	7439-96-5	1.200%	0.098%	
				Silicon	7440-21-3	0.700%	0.057%	
				Phosphorus	7723-14-0	0.020%	0.002%	
				Sulfur	7704-34-9	0.010%	0.001%	
				Nickel	7440-02-0	11.000%	0.899%	
				Chromium	7440-47-3	18.000%	1.471%	
				Iron	7439-89-6	69.000%	5.638%	
Total			332.8900					

This Document was updated: Mar 2025

Important remarks:

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