

MATERIAL DECLARATION SHEET



Material Number	CAY16-J4AS Series			
Product Line	Chip Resistor			
Compliance Date	11/19/2015			
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 substrate	Alumina	5.960	Magnesium oxide	1309-48-4	1.3	1.1227	86.3643
				Crystalline silica	14808-60-7	3.0	2.5909	
				Aluminum oxide	1344-28-1	95.0	82.0461	
				Calcium oxide	1305-78-8	0.7	0.6046	
2	Rear electrode	Ag glass	0.043	Lead	7439-92-1	5.0	0.0312	0.6231
				Boron	7440-42-8	1.0	0.0062	
				Cupric oxide	1317-38-0	5.0	0.0312	
				Silver	7440-22-4	85.0	0.5296	
				Crystalline silica	14808-60-7	4.0	0.0249	
2	Surface electrode	AgPd glass	0.058	Lead	7439-92-1	2.0	0.0168	0.8405
				Boron	7440-42-8	1.0	0.0084	
				Palladium	7440-05-3	21.0	0.1765	
				Silver	7440-22-4	73.0	0.6135	
				Crystalline silica	14808-60-7	2.0	0.0168	
				Zirconium oxide	1314-23-4	1.0	0.0084	
3	Resistance Element	RuO2 glass	0.050	Lead	7439-92-1	26.0	0.1884	0.7245
				Boron	7440-42-8	4.0	0.0290	
				Palladium	7440-05-3	7.0	0.0507	
				Silver	7440-22-4	38.0	0.2753	
				Crystalline silica	14808-60-7	9.0	0.0652	
				Manganese oxide	1313-13-9	1.0	0.0072	
				Ruthenium oxide	12036-10-1	15.0	0.1087	
4	Protective Coat 1	Glass	0.053	Lead	7439-92-1	50.0	0.3840	0.7680
				Boron	7440-42-8	10.0	0.0768	
				Crystalline silica	14808-60-7	37.0	0.2842	
				Chromium oxide	1308-38-9	3.0	0.0230	

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5	Protective Coat 2	Resin	0.092	Crystalline silica	14808-60-7	35.0	0.4666	1.3331
				Epoxy resin	Proprietary	65.0	0.8665	
6	Stamp	Resin	0.005	Nickel	7440-02-0	4.0	0.0029	0.0725
				Crystalline silica	14808-60-7	22.0	0.0159	
				Titanium dioxide	13463-67-7	22.0	0.0159	
				Epoxy resin	Proprietary	52.0	0.0377	
7	Side electrode	Resin	0.300	Silver	7440-22-4	85.0	3.6951	4.3472
				Epoxy resin	Proprietary	15.0	0.6521	
8	Internal coating	Nickel	0.180	Nickel	7440-02-0	99.75	2.6018	2.6083
				Misc., not to declare	N/A	0.25	0.0065	
9	External coating	Tin	0.160	Tin	7440-31-5	99.75	2.3127	2.3185
				Misc., not to declare	N/A	0.25	0.0058	
		Total weight	6.901					

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Important remarks:

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