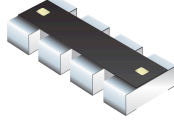


MATERIAL DECLARATION SHEET



Material Number	CAY10-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	1.840	Magnesium oxide	1309-48-4	1.3	1.0863	83.5605
				Crystalline silica	14808-60-7	3.0	2.5068	
				Aluminum oxide	1344-28-1	95.0	79.3825	
				Calcium oxide	1305-78-8	0.7	0.5849	
2	Rear electrode	Ag glass	0.024	Lead	7439-92-1	5.0	0.0545	1.0899
				Boron	7440-42-8	1.0	0.0109	
				Cupric oxide	1317-38-0	5.0	0.0545	
				Silver	7440-22-4	85.0	0.9264	
				Crystalline silica	14808-60-7	4.0	0.0436	
3	Surface electrode	AgPd glass	0.045	Lead	7439-92-1	2.0	0.0409	2.0436
				Boron	7440-42-8	1.0	0.0204	
				Palladium	7440-05-3	21.0	0.4292	
				Silver	7440-22-4	73.0	1.4918	
				Crystalline silica	14808-60-7	2.0	0.0409	
				Zirconium oxide	1314-23-4	1.0	0.0204	
4	Resistance Element	RuO2 glass	0.030	Lead	7439-92-1	26.0	0.3542	1.3624
				Boron	7440-42-8	4.0	0.0545	
				Palladium	7440-05-3	7.0	0.0954	
				Silver	7440-22-4	38.0	0.5177	
				Crystalline silica	14808-60-7	9.0	0.1226	
				Manganese oxide	1313-13-9	1.0	0.0136	
				Ruthenium oxide	12036-10-1	15.0	0.2044	
5	Protective Coat 1	Glass	0.030	Lead	7439-92-1	50.0	0.6812	1.3624
				Boron	7440-42-8	10.0	0.1362	
				Crystalline silica	14808-60-7	37.0	0.5041	
				Chromium oxide	1308-38-9	3.0	0.0409	

MATERIAL DECLARATION SHEET



6	Protective Coat 2	Resin	0.030	Crystalline silica	14808-60-7	35.0	0.5086	1.4532
				Epoxy resin	Proprietary	65.0	0.9446	
7	Stamp	Resin	0.003	Nickel	7440-02-0	4.0	0.0054	0.1362
				Crystalline silica	14808-60-7	22.0	0.03	
				Titanium dioxide	13463-67-7	22.0	0.03	
				Epoxy resin	Proprietary	52.0	0.0708	
8	Side electrode	Resin	0.054	Silver	7440-22-4	85.0	2.0844	2.4523
				Epoxy resin	Proprietary	15.0	0.3679	
9	Internal coating	Nickel	0.074	Nickel	7440-02-0	99.75	3.3522	3.3606
				Misc., not to declare	N/A	0.25	0.0084	
10	External coating	Tin	0.070	Tin	7440-31-5	99.75	3.1709	3.1789
				Misc., not to declare	N/A	0.25	0.0080	
		Total weight	2.20					

This Document was updated on: January 5, 2017

Important remarks:

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