MATERIAL DECLARATION SHEET

Material Number	CRS 0603-A (> 1Ω)			
Product Line	High power & anti-surge chip resistors			
Compliance Date	**04/11/2017**			
RoHS Compliant	**Yes** (with Exemption)	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	1.811	Aluminum oxide	1344-28-1	96	77.314	80.535
				Silicon dioxide	14808-60-7	4	3.221	
				Magnesium oxide	1309-48-4			
2	Top conductor	Silver	0.0464	Silver	7440-22-4	100	2.063	2.063
3	Bottom conductor	Silver	0.0201	Silver	7440-22-4	100	0.894	0.894
4	Resistor	Ruthenium Oxide	0.0264	Silver	7440-22-4	40	0.469	1.174
				Ruthenium oxide	12036-10-1	20	0.235	
				Palladium	7440-05-3	15	0.176	
				Glass (no declarables)	65997-18-4	14.9	0.175	
				Lead	7439-92-1	10.1	0.119	

5	First encapsulating	Glass	0.0252	Silica	14808-60-7	74	0.83	1.121
				Glass (no declarables)	65997-18-4	12	0.134	
				Aluminum oxide	1344-28-1	6	0.067	
				Chromium oxide	1308-38-9	8	0.090	
6	Overcoat	Resin	0.0517	Resin	25036-25-3	100	2.299	2.299
7	Side conductor	Silver	0.1309	Silver	7440-22-4	85	4.948	5.821
				Resin	9003-36-5	15	0.873	
8	Plating (Middle)	Nickel	0.0525	Nickel	7440-02-0	100	2.335	2.335
9	Plating (Outer)	Tin	0.0782	Tin	7440-31-5	100	3.478	3.478
10	Marking	Resin	0.0063	Resin	29690-82-2	70	0.196	0.28
				Titanium oxide	1317-80-2	30	0.084	
		Total weight	2.2487					

This Document was updated on: 04/11/2017

Important remarks:

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

2. RoHS exemption: 7(c)-1 Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.