Material Declaration Data Sheet

RHC2512

High Power Thick Film Chip Resistor

Date: **January 7, 2013**

Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)

Component Weight (mg): **44.0973**

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic substrate	aluminum oxide	1344-28-1	32.8608	745,188	96.00%	34.2300	77.62%
	silicon oxide	7631-86-9	0.6846	15,525	2.00%		
	magnesium oxide	1309-48-4	0.3423	7,762	1.00%		
	calcium oxide	1305-78-8	0.3423	7,762	1.00%		
Inner termination layer	silver	7440-22-4	2.3783	53,933	79.54%	2.9900	6.78%
	palladium	7440-05-3	0.0317	719	1.06%		
	lead borosilicate glass	undefined	0.5800	13,153	19.40%		
Resistive element	ruthenium oxide	12036-10-1	0.4219	9,567	29.23%	1.4435	3.27%
	silver	7440-22-4	0.2103	4,769	14.57%		
	palladium	7440-05-3	0.0612	1,388	4.24%		
	lead borosilicate glass	undefined	0.7501	17,010	51.96%		
Pre-coat	lead borosilicate glass	undefined	2.1669	49,139	89.64%	2.4174	5.48%
	copper oxide	1317-38-0	0.1113	2,524	4.60%		
	magnesium oxide	1309-48-4	0.1392	3,157	5.76%		
Over-coat	epoxy	67762-95-2	1.6060	36,419	100.00%	1.6060	3.64%
Middle termination layer	nickel	7440-02-0	0.5000	11,339	100.00%	0.5000	1.13%
Side termination	nickel	7440-02-0	0.00022	5	55.00%	0.0004	0.00%
	chromium	7440-47-3	0.00018	4	45.00%		
Outer termination layer	tin	7440-31-5	0.9100	20,636	100.00%	0.9100	2.06%
Total Weight			44.0973				

Note: Lead oxide contained in glass frit is part of the thick film formulations. This lead content is covered by exemption 7c-I of the Directive Annex ("… electronic components containing lead in a glass…"). Weights are approximate.