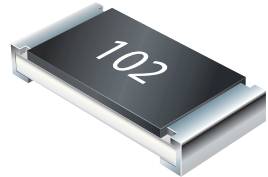


# MATERIAL DECLARATION SHEET



Material Number	CR0805-PF Series (100ohm above)			
Product Line	Thick Film Resistors (Ultra-low lead content)			
Compliance Date	2017.12.06			
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	CR****	3.81944	Aluminum oxide	1344-28-1	96%	85.56%	89.13%
				Silicon dioxide	14808-60-7	4%	3.57%	
2	Conductor Layer	5***	0.08224	Silver	7440-22-4	100%	1.92%	1.92%
3	Resistive Element	R-U	0.04328	Ruthenium oxide	12036-10-1	30%	0.30%	1.01%
				Silver	7440-22-4	45%	0.45%	
				Glass (non-lead)	65997-17-3	25%	0.25%	
4	Over Coating	1***	0.06650	Epoxy	25068-38-6	100%	1.55%	1.55%
5	Marking	ZSR-1**	0.00361	Epoxy	25085-99-8	100%	0.08%	0.08%
6	End Terminal	NI-CR	0.00337	Nickel	7440-02-0	80%	0.06%	0.08%
				Chromium	7440-47-3	20%	0.02%	
7	Ni Plating	Ni	0.14111	Nickel	7440-02-0	100%	3.29%	3.29%
8	Sn Plating	Sn	0.12589	Tin	7440-31-5	100%	2.94%	2.94%
			Total weight	4.28544				

This Document was updated on: 2017/12/6