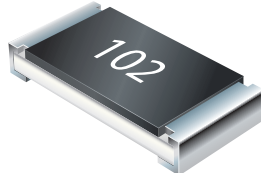


MATERIAL DECLARATION SHEET



Material Number	CR0402-PF Series (10~100ohm)			
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****	0.429936	Aluminum oxide	1344-28-1	96%	77.88%	81.12%
				Silicon dioxide	14808-60-7	4%	3.24%	
2	Conductor Layer	5***	0.002809	Silver	7440-22-4	100%	0.53%	0.53%
3	Resistive Element	R-U	0.002438	Chromium	7440-47-3	60%	0.28%	0.46%
				Nickel	7440-02-0	40%	0.18%	
4	Over Coating	1***	0.050933	Epoxy	25068-38-6	100%	9.61%	9.61%
5	End Terminal	NI-CR	0.000742	Nickel	7440-02-0	80%	0.11%	0.14%
				Chromium	7440-47-3	20%	0.03%	
6	Ni Plating	Ni	0.02279	Nickel	7440-02-0	100%	4.30%	4.30%
7	Sn Plating	Sn	0.020352	Tin	7440-31-5	100%	3.84%	3.84%
			Total weight	0.53				

This Document was updated on: 2017/12/6