

Material Data Sheet

Date : December 16, 2013
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Product P/N	ERJL03KJ000V		
Product Classification	Electric/Electronic component (Passive component)		
Product Name	Chip Resistor	Substitute P/N	No
Pb	Pb free	Packaging Material	Not included
		Weight TOTAL (mg)	2.432023

Part Name	Material Name	Chemical Name	CASNo.	Remark	Weight of each chemical material in a part (mg)	Weight of a part (mg)	Rate of each chemical material in a part (%)	Rate of each chemical material in a product (%)	Rate of each part in a product (wt %)		
Substrate	Ceramics	Aluminum oxide : Alumina; Corundum: Al2O3	1344-28-1		1.7388	1.8	96.6	74.012079	71.495654		
		Silica: Silicon dioxide	7631-86-9		0.0378					2.1	1.554262
		Magnesium oxide: MgO	1309-48-4		0.018					1	0.740125
		Calcium oxide: CaO	1305-78-8		0.0054					0.3	0.222038
Top Terminal	Glass	Copper: Cu	7440-50-8		0.057405	0.0612	93.799019	2.516466	2.360422		
		Lead(II) oxide: Lead oxide (PbO) RoHS exemption 7c(I)	1317-36-8		0.002326					3.800654	0.095641
		Zinc oxide: ZnO	1314-13-2		0.001469					2.400327	0.060403
Bottom Terminal	Glass	Copper: Cu	7440-50-8		0.024233	0.02456	98.67671	1.009901	0.996537		
		Boron oxide: B2O3	1303-86-2		0.000325					1.32329	0.013364
Resistive Element	Glass	Copper: Cu	7440-50-8		0.026702	0.04604	57.997393	1.893157	1.098016		
		Nickel and Nickel alloys	Nickel: Ni	7440-02-0	0.017772					38.601217	0.73075
		Lead(II) oxide: Lead oxide (PbO) RoHS exemption 7c(I)	1317-36-8		0.001566					3.40139	0.064391
Re-top Terminal	Glass	Copper: Cu	7440-50-8		0.057966	0.059514	97.398931	2.44714	2.383489		
		Zinc oxide: ZnO	1314-13-2		0.001543					2.601069	0.063651
Overcoat	EP (Epoxy resin)	Epichlorohydrin, o-cresol, formaldehyde polymer: Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2		0.010695	0.0155	69	0.637331	0.439758		
		Ceramics	Silica: Silicon dioxide	7631-86-9	0.003565					23	0.146286
		Others (Powder, etc)	Carbon black: C	1333-86-4	0.00124					8	0.050987
Marking I	EP (Epoxy resin)	Epichlorohydrin, o-cresol, formaldehyde polymer: Formaldehyde, polymer with (chloromethyl)oxirane and 2-methylphenol	29690-82-2		0.001042	0.00171	60.935672	0.070396	0.042928		
		Ceramics	Silica: Silicon dioxide	7631-86-9	0.000522					30.526316	0.021464
		Others (Powder, etc)	Titanium dioxide: Pigment white 6: TiO2	13463-67-7	0.000146					8.538012	0.066004
Side Terminal	EP (Epoxy resin)	Bisphenol A, epichlorohydrin polymer: Epoxy resin: Epon 820: Araldite GY 250	25068-38-6		0.012863	0.0283	45.452296	1.163724	0.528902		
		Other special metals	Silver: Ag	7440-22-4	0.012861					45.44523	0.528902
		Others (Powder, etc)	Carbon black: C	1333-86-4	0.002576					9.102474	0.10592
		Copper: Cu	7440-50-8		0.1842					0.1842	100
Middle Terminal (ni)	Nickel and Nickel alloys	Nickel: Ni	7440-02-0		0.124	0.124	100	5.098636	5.098636		
Outer Terminal (sn)	Other nonferrous metals	Tin: Sn	7440-31-5		0.086999	0.086999	100	3.577228	3.577228		