

Material Data Sheet

Date : Jun/17/2010
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Product P/N	ER112ZYJ0001			Weight TOTAL(mg)	25.1395
Product Classification	Electric/Electronic component(Passive component)				
Product Name	Chip Resistor	Substitute P/N	No		
Pb	Pb free	Packaging Material	Not included		

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 (wt%)	Rate of each part in a product (wt%)	
Substrate		Ceramics	Aluminum oxide ; Alumina; Corundum; Al2O3	1344-28-1		22.0248	22.8	96.6	90.693937	87.610341	
			Silica; Silicon dioxide	7631-86-9	0.4788	2.1		1.904574			
			Magnesium oxide; MgO	1309-48-4	0.228	1		0.90694			
			Calcium oxide; CaO	1305-78-8	0.0684	0.3		0.272082			
Top Terminal		Other special metals	Silver; Ag	7440-22-4		0.116006	0.11972	96.89776	0.476236	0.461462	
			Palladium; Pd	7440-05-3	0.001557	1.300535		0.006194			
		Glass	Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.001078		0.900435			0.004288
			Cupric oxide; CuO	1317-38-0	0.000719	0.600568		0.00286			
			Silica; Silicon dioxide	7631-86-9	0.00036	0.300702		0.001432			
Bottom Terminal		Other special metals	Silver; Ag	7440-22-4		0.162453	0.16662	97.499098	0.662791	0.646215	
		Glass	Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8	0.0025	1.500421		0.009945			
Resistive Element		Glass	Silica; Silicon dioxide	7631-86-9		0.001667	0.13716	1.000481	0.545606	0.240065	
			Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8	0.060349	43.998978		0.208422			
			Ruthenium(IV) oxide; RuO2	12036-10-1	0.052396	38.200642		0.08184			
			Boron oxide; B2O3	1303-86-2	0.020574	15		0.010203			
			Other antimony compounds	---	0.002565	1.870079		0.005076			
			Manganese dioxide; MnO2	1313-13-9	0.001276	0.930301		0.190513			
First Protective Coating		Glass	Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.047892	0.08708	54.997702	0.346397	0.190513	
			Silica; Silicon dioxide	7631-86-9	0.022293	25.600598		0.088678			
			Boron oxide; B2O3	1303-86-2	0.011234	12.900781		0.044687			
			Zinc oxide; ZnO	1314-13-2	0.003658	4.200735		0.014551			
			Chromium(III) oxide; Pigment green 17 (C.I.); Cr2O3	1308-38-9	0.002003	2.300184		0.007968			
Second Protective Coating		EP (Epoxy resin)	Epichlorohydrin, o-cresol, formaldehyde polymer; Formaldehyde, polymer with (chloromethyl)oxirane and 2-me	29690-82-2		0.300805	0.43595	68.999885	1.73413	1.196549	
		Ceramics	Silica; Silicon dioxide	7631-86-9	0.100269	23.000115		0.398851			
		Other thermoplastics	Carbon black; C	1333-86-4	0.034876	8		0.13873			
Marking 1		EP (Epoxy resin)	Epichlorohydrin, o-cresol, formaldehyde polymer; Formaldehyde, polymer with (chloromethyl)oxirane and 2-me	29690-82-2		0.005581	0.00915	60.994534	0.036402	0.022205	
		Ceramics	Silica; Silicon dioxide	7631-86-9	0.002791	30.502733		0.011102			
		Other thermoplastics	Titanium dioxide; Pigment white 6; TiO2	13463-67-7	0.000778	8.502733		0.003095			
Side Terminal		Other special metals	Silver; Ag	7440-22-4		0.175439	0.3678	47.699564	1.463048	0.697871	
		EP (Epoxy resin)	Bisphenol A, epichlorohydrin polymer; Epoxy resin; Epon 820; Araldite GY 250	25068-38-6	0.153373	41.700109		0.610089			
		Other thermoplastics	Carbon black; C	1333-86-4	0.021701	5.900218		0.086323			
		Other nonferrous metal	Potassium titanate; Potassium titanium oxide; K2Ti6O13	12056-51-8	0.017287	4.700109		0.068765			
Middle Terminal		Nickel and Nickel alloy	Nickel; Ni	7440-02-0		0.514	0.514	100	2.044593	2.044593	
Outer Terminal		Other nonferrous metal	Tin; Sn	7440-31-5		0.502	0.502	100	1.99686	1.99686	