

Dear Customers,

Material Data Sheet

Date : July 25, 2022
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Product P/N	ERJ2GEJ@@@X			
Product Classification		Electric/Electronic component(Passive component)		
Product Name	Chip Resistor	Substitute P/N	No	Weight TOTAL(mg)
Pb	Pb free	Packaging Material	Not included	0.63141

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		0.4443600	0.460000	96.6	72.8512300	70.374232		
		Quartz; SiO2	14808-60-7		0.0096600		2.1		1.529910		
		Magnesium oxide; MgO	1309-48-4		0.0046000		1		0.728529		
		Calcium oxide; CaO	1305-78-8		0.0013800		0.3		0.218559		
Top Terminal	Other special metals	Silver; Ag	7440-22-4		0.0056200	0.006160	91.233765	0.9757530	0.890230		
		Palladium; Pd	7440-05-3		0.0004070		6.607143		0.064459		
	Glass	Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.0008000		1.298702		0.012670		
		Silica; Silicon dioxide	7631-86-9		0.0000530		0.86039		0.008394		
Bottom Terminal	Other special metals	Silver; Ag	7440-22-4		0.0077800	0.007980	97.493733	1.2639970	1.232322		
		Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.0001200		1.50376		0.019005		
	Glass	Silica; Silicon dioxide	7631-86-9		0.0008000		1.002507		0.012670		
		Silica; Silicon dioxide	12036-10-1		0.0025210		42.874149		0.9315670		
Resistive Element	Glass	Ruthenium(IV) oxide; RuO2	12036-10-1		0.0025210	0.005880	42.874149	0.9315670	0.99582		
		Silica; Silicon dioxide	7631-86-9		0.0011760		20		0.186250		
		Boron oxide; B2O3	1303-86-2		0.0004180		7.108844		0.066201		
		Manganese dioxide; MnO2	1313-13-9		0.0001420		2.414966		0.022490		
		Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.0016230		27.602041		0.257044		
		Silica; Silicon dioxide	7631-86-9		0.0002320		54.965984		0.512187		
First Protective Coating	Glass	Lead(II) oxide; Lead oxide (PbO); C.I. Pigment Yellow 46; Lead monooxide; Lead(2+) oxide	1317-36-8		0.0032320	0.005880	54.965984	0.9315670	0.512187		
		Silica; Silicon dioxide	7631-86-9		0.0015960		25.612245		0.238514		
		Boron oxide; B2O3	1303-86-2		0.0007590		12.908164		0.120208		
		Zinc oxide; ZnO	1314-13-2		0.0002470		4.200681		0.039119		
		Chromium(III) oxide; Pigment green 17 (C.I.); Cr2O3	1308-38-9		0.0001360		2.312926		0.021539		
		Silica; Silicon dioxide	7631-86-9		0.0062360		66.98174		1.4747970		
Second Protective Coating	Ceramics	Silica; Silicon dioxide	7631-86-9		0.0062360	0.009310	66.98174	1.4747970	0.987948		
		EP (Epoxy resin)	Epichlorohydrin, o-cresol, formaldehyde polymer; Formaldehyde, polymer with (chloromethyl)loxirane and 2-methylphenol	-	0.0027930		30		0.442344		
	Others (Powder,etc)	Carbon black; C	1333-86-4		0.0001870		2.008593		0.029617		
		Other special metals	Silver; Ag	7440-22-4			0.0241800		45.451127	8.4259060	
Side Terminal	EP (Epoxy resin)	Bisphenol A, epichlorohydrin polymer; Epoxy resin; Epon 820; Araldite GY 250	-		0.0241780	0.053200	45.447369	8.4259060	3.829525		
		Others (Powder,etc)	Carbon black; C	1333-86-4			0.0048420		9.101504	0.766856	
	Other nonferrous metals	Nickel; Ni	7440-02-0		0.0430000		0.043000		100	6.8101550	6.810155
		Tin; Sn	7440-31-5		0.0400000		0.040000		100	6.3350280	6.335028

EU RoHS exemption 7(c)-1
 Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound