

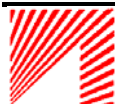
# Material Declaration



Package Type	5 x 3.2
Package Size	5 x 3.2 mm
Terminal Finish	Gold
Finish Thickness	0.5 microns
Weight (mg)	40.000
MSL	1

Series	CC532
--------	-------

Item	Material	Element	Content (mg)	Content (wt%)	CAS #	
Cover	Kovar	Nickel (Ni)	2.616	6.541%	7440-02-0	
		Cobalt (Co)	1.519	3.799%	7440-48-4	
		Iron (Fe)	4.883	12.208%	7439-89-6	
	Plating	Nickel (Ni)	0.262	0.656%	7440-22-4	
Base	Ceramic	Alumina (Al <sub>2</sub> O <sub>3</sub> )	19.175	47.938%	1344-28-1	
		Silicon Dioxide (SiO <sub>2</sub> )	1.357	3.392%	7631-86-9	
		Chromium Oxide (Cr <sub>2</sub> O <sub>3</sub> )	0.748	1.869%	1308-38-9	
		Molybdenum (Mo)	0.098	0.244%	7439-98-7	
	Metallization	Tungsten (W)	1.828	4.570%	7440-33-7	
	Nickel Plating	Nickel (Ni)	0.366	0.914%	7440-02-0	
		Cobalt (Co)	0.130	0.325%	7440-48-4	
	Gold Plating	Gold (Au)	0.187	0.467%	7440-57-5	
	Seal Ring	Iron (Fe)	Nickel (Ni)	2.438	6.094%	7439-86-6
			Nickel (Ni)	1.308	3.270%	7440-02-0
			Cobalt (Co)	0.764	1.909%	7440-48-4
	Silver Solder	Silver (Ag)	0.618	1.544%	7440-22-4	
		Copper (Cu)	0.106	0.264%	7440-50-8	
	IC	IC	Aluminum (Al)	0.001	0.002%	7429-90-5
			Silicon (Si)	0.397	0.993%	7440-21-3
Gold Wire		Gold (Au)	0.233	0.583%	7440-57-5	
Adhesive		Silver (Ag)	0.000153	0.000382%	7440-22-4	
		Epoxy	0.0000508	0.0001270%		
Crystal	Crystal	Quartz (SiO <sub>2</sub> )	0.951	2.377%	14808-60-7	
	Electrode	Silver (Ag)	0.015	0.039%	7440-22-4	
		Nickel (Ni)	0.000129	0.000323%	7440-02-0	
	Adhesive	Silver (Ag)	0.00030	0.00075%	7440-22-4	
		Silicon (Si)	0.000102	0.000254%	7440-21-3	
<b>TOTAL</b>			<b>40.000</b>	<b>100.000%</b>		



Cardinal Components, Inc.  
145 Rt. 46 West  
Wayne, NJ 07470

TEL: (973)785-1333  
E-MAIL: sales@cardinalxtal.com  
WEB: http://www.cardinalxtal.com