

MATERIAL DATA SHEET



SMD Diodes Specialist

Material #	CXXER(0503) FR-5 series	
Product Line	Discrete Devices	
Date	2007/12/31	
Rev. date	B	

COMPONENT DETAILS

No.	Construction element	Material group	Material weight (mg)	Material	CAS if applicable	Average mass (%)	Sum(%)	Traces
1	FR-5 Board	Substrate/ Terminal	0.231	Copper	7440-50-8	58.86%	16.27	
				Nickel	7440-02-0	3.12%		
				Aurum	7440-57-5	0.09%		
				Lead	7439-92-1	0.002%		
				Epoxy resin	-----	37.93%		
2	Wafer	Diode	0.029	Silicon	7440-21-3	97.90%	2.04	
				Aluminium	7429-90-5	2.00%		
				Titanium	7440-32-6	0.001%		
				Silver	7440-22-4	0.001%		
				SiO2	14808-60-7	0.05%		
3	Al wire	Conductor	0.001	Aluminium	7429-90-5	>99%	0.07	
				Silicon	7440-21-3	<1%		
4	Silver paste	Welding	0.006	Silver	7440-22-4	75~82%	0.42	
				Phenol Novolac Epoxy	9003-36-5	18~25%		
				Dicyanodiamide	461-58-5			
				p-t Buthylphenyl Glycidyl Ether	3101-60-8			
5	Molding Compound	Outer	1.153	Silica fused	60676-86-0	75~95%	81.20	
				Epoxy resin	-----	6~10%		
				Phenol resin	-----	2~6%		
				Antimony Trioxide	1309-64-4	0.5~2.5%		
				Brominated Epoxy Resin	68541-56-0	0.5~2.5%		
				Carbon Black	1333-86-4	0.1~0.5%		
		Total weight	1.42					

Note: The existence of Pb is unavoidable during the process of substrate; concentration of Pb in the substrate is about 0.002% by wt%.