



**100% Material Declaration Data Sheet for 7-Series FFG901 RoHS 6/6**

PK826(v1.0) November 30, 2016

**Average Weight : 10.0846 g**

Component	Substance Description	CAS # or Description	% of component	Use in product	Component weight / substance weight ( in grams)	Component % of total
Silicon die	Silicon	7440-21-3	100.00	basis	0.446519	4.428%
					0.446519	
Bump	Tin	7440-31-5	98.20	basis	0.017783	0.180%
	Silver	7440-22-4	1.80	basis	0.000326	
					0.051000	
Underfill	Bisphenol F type liquid epoxy	9003-36-5	15.00	basis	0.007650	0.506%
	1,6-Bis(2,3-epoxypropoxy)naphthalene	27610-48-6	10.00	basis	0.005100	
	Bisphenol A type liquid epoxy	25068-38-6	5.00	basis	0.002550	
	Amine type hardener	trade secret	10.00	basis	0.005100	
	Silicon dioxide	60676-86-0	58.00	filler	0.029580	
	Carbon black	1333-86-4	1.00	color agent	0.000510	
	Additives	trade secret	1.00	additives	0.000510	
Solder paste					0.005344	0.053%
	Tin	7440-31-5	96.50	metal	0.005157	
	Silver	7440-22-4	3.00	metal	0.000160	
	Copper	7440-50-8	0.50	metal	0.000027	
Capacitor 1					0.004200	0.042%
	BaTiO3 type	1304-28-5	40.00	Ceramic	0.001680	
	Titanium dioxide	13463-67-7	20.00		0.000840	
	Misc	-	6.67		0.000280	
	Nickel	7440-02-0	2.42	Inner electrode	0.000102	
	Copper	7440-50-8	20.73	Out electrode	0.000871	
	Silicon dioxide	7631-86-9	1.85		0.000078	
	diboron trioxide; boric oxide	1303-86-2	0.45		0.000019	
	Nickel	7440-02-0	2.12	Plating1	0.000089	
	Tin	7440-31-5	5.76	Plating2	0.000242	
Capacitor2					0.007360	0.073%
	BaTiO3 type	1304-28-5	31.67	Ceramic	0.002331	
	Titanium dioxide	13463-67-7	15.83		0.001165	
	Misc	-	5.28		0.000389	
	Nickel	7440-02-0	26.67	Inner Electrode	0.001963	
	Copper	7440-50-8	15.10	Outer Electrode	0.001111	
	Silicon dioxide	7631-86-9	1.34		0.000099	
	diboron trioxide; boric oxide	1303-86-2	0.33		0.000024	
	Nickel	7440-02-0	1.00	Plating1	0.000074	
Tin	7440-31-5	2.78	Plating2	0.000205		
Capacitor3					0.037800	0.375%
	BaTiO3 type	1304-28-5	37.46	Ceramic	0.014160	
	Titanium dioxide	13463-67-7	18.73		0.007080	
	Misc	-	6.24		0.002359	
	Nickel	7440-02-0	17.95	Inner Electrode	0.006785	
	Copper	7440-50-8	15.88	Outer Electrode	0.006003	
	Silicon dioxide	7631-86-9	1.41		0.000533	
	diboron trioxide; boric oxide	1303-86-2	0.35		0.000132	
Nickel	7440-02-0	0.54	Plating1	0.000204		
Tin	7440-31-5	1.44	Plating2	0.000544		
Heat sink					5.781700	57.332%
	Copper	7440-50-8	98.35	Main material	5.686302	
Heat sink adhesive					0.095398	0.823%
	Nickel	7440-02-0	1.65	Main material	0.095398	
	Aluminium Oxide Al2O3	-	80.00	Main material	0.066400	
Solder ball					0.016600	7.455%
	Dimethyl siloxane, dimethylvinyl-terminated	68083-19-2	20.00	Main material	0.016600	
	Tin	7440-31-5	96.50	Main material	0.725515	
	Silver	7440-22-4	3.00	Main material	0.022555	
Substrate					0.003759	28.734%
	Copper	7440-50-8	40.29		1.167499	
	Tin	7440-31-5	1.08		0.031296	
	Silver	7440-22-4	0.03		0.000869	
	Core	N/A	43.13		1.249795	
	ABF	N/A	13.27		0.384530	
Solder mask	N/A	2.2		0.063750		