

Material Declaration for L04XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	62.8673	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	1.3667	2.10	0.653	14808-60-7	238-878-4
	MgO	0.7159	1.10	0.342	1309-48-4	215-171-9
	CaO	0.1302	0.20	0.062	1305-78-8	215-138-9
subtotal		65.0800	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.3120	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.1820	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0260	5.00	0.012	1308-38-9	215-160-9
subtotal		0.5200	100.00	0.249		
Resistive Element	RuO ₂	0.2154	15.84	0.103	12036-10-1	234-840-6
	PbO	0.5723	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.2289	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.0801	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.2289	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0343	2.52	0.016	1314-13-2	215-222-5
subtotal		1.3600	100.00	0.650		
Termination Ag/Pd	Ag	2.2097	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0241	1.02	0.012	7440-5-3	231-115-6
	Glass	0.1284	5.44	0.061	65997-18-4	266-047-6
subtotal		2.3600	100.00	1.129		
Lead Frame	Fe	31.5965	85.86	15.103	7439-89-6	231-096-4
	Sn	5.2035	14.14	2.487	7440-31-5	231-141-8
subtotal		36.8000	100.00	17.591		
Sn	Sn	13.1202	98.50	6.272	07440-31-5	231-141-8
	Ag	0.1332	1.00	0.064	7440-22-4	231-131-3
	Cu	0.0666	0.50	0.032	7440-50-8	231-159-6
subtotal		13.3200	100.00	6.367		
Encapsulation	epoxy resin	26.9280	30.00	12.872	/	/
	SiO ₂	40.3920	45.00	19.308	/	/
	Flame Retardant	15.2592	17.00	7.294	/	/
	Pigment	7.1808	8.00	3.433	/	/
subtotal		89.7600	100.00	42.906		
All parts total		209.2000		100.000		

Material Declaration for L05XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al2 O3	78.5841	96.60	30.051	1344-28-1	215-6916
	Si O2	1.7084	2.10	0.653	14808 60 7	238 878 4
	Mg O	0.8949	1.10	0.342	1309-48-4	215-1719
	CaO	0.1627	0.20	0.062	1305-78-8	215-1389
subtotal		81.3500	100.00	31.109		
Protective Coating (G1)	Bi2O3	0.3900	60.00	0.149	1304-76-3	215-1347
	SiO2	0.2275	35.00	0.087	14808-60-7	238-8784
	Cr2O3	0.0325	5.00	0.012	1308-38-9	215-1609
subtotal		0.6500	100.00	0.249		
Resistive Element	RuO2	0.2693	15.84	0.103	12036-10-1	234-8406
	PbO	0.7154	42.08	0.274	1317-36-8	215-2670
	SiO2	0.2861	16.83	0.109	14808-60-7	238-8784
	B2O3	0.1001	5.89	0.038	1303-86-2	215-1258
	Al2 O3	0.2861	16.83	0.109	1344-28-1	215-6916
	ZnO	0.0428	2.52	0.016	1314-13-2	215-2225
subtotal		1.7000	100.00	0.650		
Termination Ag/Pd	Ag	2.7621	93.63	1.056	7440-22-4	231-1313
	Pd	0.0301	1.02	0.012	7440-5-3	231-1156
	Glass	0.1605	5.44	0.061	65997-18-4	266-0476
subtotal		2.9500	100.00	1.129		
Lead Frame	Fe	39.4956	85.86	15.103	7439-89-6	231-096-4
	Sn	6.5044	14.14	2.487	7440-31-5	231-141-8
subtotal		46.0000	100.00	17.591		
Sn	Sn	16.4003	98.50	6.272	07440-315	231-141-8
	Ag	0.1665	1.00	0.064	7440-22-4	231-1313
	Cu	0.0833	0.50	0.032	7440-50-8	231-159-6
subtotal		16.6500	100.00	6.367		
Encapsulation	epoxy resin	33.6600	30.00	12.872	/	/
	SiO2	50.4900	45.00	19.308	/	/
	Flame Retardant	19.0740	17.00	7.294	/	/
	Pigment	8.9760	8.00	3.433	/	/
subtotal		112.2000	100.00	42.906		
All parts total		261.5000		100.000		

Material Declaration for L06XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	94.3009	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	2.0500	2.10	0.653	14808-60-7	238-878-4
	MgO	1.0738	1.10	0.342	1309-48-4	215-171-9
	CaO	0.1952	0.20	0.062	1305-78-8	215-138-9
	subtotal	97.6200	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.4680	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.2730	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0390	5.00	0.012	1308-38-9	215-160-9
	subtotal	0.7800	100.00	0.249		
Resistive Element	RuO ₂	0.3231	15.84	0.103	12036-10-1	234-840-6
	PbO	0.8584	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.3433	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.1202	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.3433	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0514	2.52	0.016	1314-13-2	215-222-5
	subtotal	2.0400	100.00	0.650		
Termination Ag/Pd	Ag	3.3145	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0361	1.02	0.012	7440-5-3	231-115-6
	Glass	0.1926	5.44	0.061	65997-18-4	266-047-6
	subtotal	3.5400	100.00	1.129		
Lead Frame	Fe	47.3947	85.86	15.103	7439-89-6	231-096-4
	Sn	7.8053	14.14	2.487	7440-31-5	231-141-8
	subtotal	55.2000	100.00	17.591		
Sn	Sn	19.6803	98.50	6.272	07440-31-5	231-141-8
	Ag	0.1998	1.00	0.064	7440-22-4	231-131-3
	Cu	0.0999	0.50	0.032	7440-50-8	231-159-6
	subtotal	19.9800	100.00	6.367		
Encapsulation	epoxy resin	40.3920	30.00	12.872	/	/
	SiO ₂	60.5880	45.00	19.308	/	/
	Flame Retardant	22.8888	17.00	7.294	/	/
	Pigment	10.7712	8.00	3.433	/	/
	subtotal	134.6400	100.00	42.906		
All parts	total	313.8000		100.000		

Material Declaration for L07XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al2 O3	110.0177	96.60	30.051	1344-28-1	215-6916
	Si O2	2.3917	2.10	0.653	14808-60-7	238 878 4
	Mg O	1.2528	1.10	0.342	1309-48-4	215 171 9
	CaO	0.2278	0.20	0.062	1305-78-8	215 138 9
subtotal		113.8900	100.00	31.109		
Protective Coating (G1)	Bi2O3	0.5460	60.00	0.149	1304-76-3	215 134 7
	SiO2	0.3185	35.00	0.087	14808-60-7	238 878 4
	Cr2O3	0.0455	5.00	0.012	1308-38-9	215 160 9
subtotal		0.9100	100.00	0.249		
Resistive Element	RuO2	0.3770	15.84	0.103	12036-10-1	234-8406
	PbO	1.0015	42.08	0.274	1317-36-8	215 267 0
	SiO2	0.4006	16.83	0.109	14808-60-7	238 878 4
	B2O3	0.1402	5.89	0.038	1303-86-2	215 125 8
	Al2 O3	0.4006	16.83	0.109	1344-28-1	215-6916
	ZnO	0.0600	2.52	0.016	1314-13-2	215 222 5
subtotal		2.3800	100.00	0.650		
Termination Ag/Pd	Ag	3.8669	93.63	1.056	7440-22-4	231 131 3
	Pd	0.0421	1.02	0.012	7440-5-3	231 115 6
	Glass	0.2247	5.44	0.061	65997-18-4	266 047 6
subtotal		4.1300	100.00	1.129		
Lead Frame	Fe	55.2938	85.86	15.103	7439-89-6	231-096-4
	Sn	9.1062	14.14	2.487	7440-31-5	231-141-8
subtotal		64.4000	100.00	17.591		
Sn	Sn	22.9604	98.50	6.272	07440-31-5	231-141-8
	Ag	0.2331	1.00	0.064	7440-22-4	231 131 3
	Cu	0.1166	0.50	0.032	7440-50-8	231-159-6
subtotal		23.3100	100.00	6.367		
Encapsulation	epoxy resin	47.1240	30.00	12.872	/	/
	SiO2	70.6860	45.00	19.308	/	/
	Flame Retardant	26.7036	17.00	7.294	/	/
	Pigment	12.5664	8.00	3.433	/	/
subtotal		157.0800	100.00	42.906		
All parts	total	366.1000		100.000		

Material Declaration for L08XXXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	125.7346	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	2.7334	2.10	0.653	14808-60-7	238-878-4
	MgO	1.4318	1.10	0.342	1309-48-4	215-171-9
	CaO	0.2603	0.20	0.062	1305-78-8	215-138-9
subtotal		130.1600	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.6240	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.3640	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0520	5.00	0.012	1308-38-9	215-160-9
subtotal		1.0400	100.00	0.249		
Resistive Element	RuO ₂	0.4308	15.84	0.103	12036-10-1	234-840-6
	PbO	1.1446	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.4578	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.1602	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.4578	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0685	2.52	0.016	1314-13-2	215-222-5
subtotal		2.7200	100.00	0.650		
Termination Ag/Pd	Ag	4.4193	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0481	1.02	0.012	7440-5-3	231-115-6
	Glass	0.2568	5.44	0.061	65997-18-4	266-047-6
subtotal		4.7200	100.00	1.129		
Lead Frame	Fe	63.1930	85.86	15.103	7439-89-6	231-096-4
	Sn	10.4070	14.14	2.487	7440-31-5	231-141-8
subtotal		73.6000	100.00	17.591		
Sn	Sn	26.2404	98.50	6.272	07440-31-5	231-141-8
	Ag	0.2664	1.00	0.064	7440-22-4	231-131-3
	Cu	0.1332	0.50	0.032	7440-50-8	231-159-6
subtotal		26.6400	100.00	6.367		
Encapsulation	epoxy resin	53.8560	30.00	12.872	/	/
	SiO ₂	80.7840	45.00	19.308	/	/
	Flame Retardant	30.5184	17.00	7.294	/	/
	Pigment	14.3616	8.00	3.433	/	/
subtotal		179.5200	100.00	42.906		
All parts total		418.4000		100.000		

Material Declaration for L09XXXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al2 O3	141.4514	96.60	30.051	1344-28-1	215-691-6
	Si O2	3.0750	2.10	0.653	14808-60-7	238-878-4
	Mg O	1.6107	1.10	0.342	1309-48-4	215-171-9
	CaO	0.2929	0.20	0.062	1305-78-8	215-138-9
subtotal		146.4300	100.00	31.109		
Protective Coating (G1)	Bi2O3	0.7020	60.00	0.149	1304-76-3	215-134-7
	SiO2	0.4095	35.00	0.087	14808-60-7	238-878-4
	Cr2O3	0.0585	5.00	0.012	1308-38-9	215-160-9
subtotal		1.1700	100.00	0.249		
Resistive Element	RuO2	0.4847	15.84	0.103	12036-10-1	234-840-6
	PbO	1.2876	42.08	0.274	1317-36-8	215-267-0
	SiO2	0.5150	16.83	0.109	14808-60-7	238-878-4
	B2O3	0.1802	5.89	0.038	1303-86-2	215-125-8
	Al2 O3	0.5150	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0771	2.52	0.016	1314-13-2	215-222-5
subtotal		3.0600	100.00	0.650		
Termination Ag/Pd	Ag	4.9718	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0542	1.02	0.012	7440-5-3	231-115-6
	Glass	0.2889	5.44	0.061	65997-18-4	266-047-6
subtotal		5.3100	100.00	1.129		
Lead Frame	Fe	71.0921	85.86	15.103	7439-89-6	231-096-4
	Sn	11.7079	14.14	2.487	7440-31-5	231-141-8
subtotal		82.8000	100.00	17.591		
Sn	Sn	29.5205	98.50	6.272	07440-31-5	231-141-8
	Ag	0.2997	1.00	0.064	7440-22-4	231-131-3
	Cu	0.1499	0.50	0.032	7440-50-8	231-159-6
subtotal		29.9700	100.00	6.367		
Encapsulation	epoxy resin	60.5880	30.00	12.872	/	/
	SiO2	90.8820	45.00	19.308	/	/
	Flame Retardant	34.3332	17.00	7.294	/	/
	Pigment	16.1568	8.00	3.433	/	/
subtotal		201.9600	100.00	42.906		
All parts total		470.7000		100.000		

Material Declaration for L10XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	157.1682	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	3.4167	2.10	0.653	14808-60-7	238-878-4
	MgO	1.7897	1.10	0.342	1309-48-4	215-171-9
	CaO	0.3254	0.20	0.062	1305-78-8	215-138-9
subtotal		162.7000	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.7800	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.4550	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0650	5.00	0.012	1308-38-9	215-160-9
subtotal		1.3000	100.00	0.249		
Resistive Element	RuO ₂	0.5386	15.84	0.103	12036-10-1	234-840-6
	PbO	1.4307	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.5722	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.2003	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.5722	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0857	2.52	0.016	1314-13-2	215-222-5
subtotal		3.4000	100.00	0.650		
Termination Ag/Pd	Ag	5.5242	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0602	1.02	0.012	7440-5-3	231-115-6
	Glass	0.3210	5.44	0.061	65997-18-4	266-047-6
subtotal		5.9000	100.00	1.129		
Lead Frame	Fe	78.9912	85.86	15.103	7439-89-6	231-096-4
	Sn	13.0088	14.14	2.487	7440-31-5	231-141-8
subtotal		92.0000	100.00	17.591		
Sn	Sn	32.8005	98.50	6.272	07440-31-5	231-141-8
	Ag	0.3330	1.00	0.064	7440-22-4	231-131-3
	Cu	0.1665	0.50	0.032	7440-50-8	231-159-6
subtotal		33.3000	100.00	6.367		
Encapsulation	epoxy resin	67.3200	30.00	12.872	/	/
	SiO ₂	100.9800	45.00	19.308	/	/
	Flame Retardant	38.1480	17.00	7.294	/	/
	Pigment	17.9520	8.00	3.433	/	/
subtotal		224.4000	100.00	42.906		
All parts total		523.0000		100.000		

Material Declaration for L11XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	172.8850	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	3.7584	2.10	0.653	14808-60-7	238-878-4
	MgO	1.9687	1.10	0.342	1309-48-4	215-171-9
	CaO	0.3579	0.20	0.062	1305-78-8	215-138-9
subtotal		178.9700	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.8580	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.5005	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0715	5.00	0.012	1308-38-9	215-160-9
subtotal		1.4300	100.00	0.249		
Resistive Element	RuO ₂	0.5924	15.84	0.103	12036-10-1	234-840-6
	PbO	1.5738	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.6294	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.2203	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.6294	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.0942	2.52	0.016	1314-13-2	215-222-5
subtotal		3.7400	100.00	0.650		
Termination Ag/Pd	Ag	6.0766	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0662	1.02	0.012	7440-5-3	231-115-6
	Glass	0.3531	5.44	0.061	65997-18-4	266-047-6
subtotal		6.4900	100.00	1.129		
Lead Frame	Fe	86.8903	85.86	15.103	7439-89-6	231-096-4
	Sn	14.3097	14.14	2.487	7440-31-5	231-141-8
subtotal		101.2000	100.00	17.591		
Sn	Sn	36.0806	98.50	6.272	07440-31-5	231-141-8
	Ag	0.3663	1.00	0.064	7440-22-4	231-131-3
	Cu	0.1832	0.50	0.032	7440-50-8	231-159-6
subtotal		36.6300	100.00	6.367		
Encapsulation	epoxy resin	74.0520	30.00	12.872	/	/
	SiO ₂	111.0780	45.00	19.308	/	/
	Flame Retardant	41.9628	17.00	7.294	/	/
	Pigment	19.7472	8.00	3.433	/	/
subtotal		246.8400	100.00	42.906		
All parts total		575.3000		100.000		

Material Declaration for L12XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	188.6018	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	4.1000	2.10	0.653	14808-60-7	238-878-4
	MgO	2.1476	1.10	0.342	1309-48-4	215-171-9
	CaO	0.3905	0.20	0.062	1305-78-8	215-138-9
subtotal		195.2400	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	0.9360	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.5460	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0780	5.00	0.012	1308-38-9	215-160-9
subtotal		1.5600	100.00	0.249		
Resistive Element	RuO ₂	0.6463	15.84	0.103	12036-10-1	234-840-6
	PbO	1.7169	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.6867	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.2403	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.6867	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.1028	2.52	0.016	1314-13-2	215-222-5
subtotal		4.0800	100.00	0.650		
Termination Ag/Pd	Ag	6.6290	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0722	1.02	0.012	7440-5-3	231-115-6
	Glass	0.3852	5.44	0.061	65997-18-4	266-047-6
subtotal		7.0800	100.00	1.129		
Lead Frame	Fe	94.7894	85.86	15.103	7439-89-6	231-096-4
	Sn	15.6106	14.14	2.487	7440-31-5	231-141-8
subtotal		110.4000	100.00	17.591		
Sn	Sn	39.3606	98.50	6.272	07440-31-5	231-141-8
	Ag	0.3996	1.00	0.064	7440-22-4	231-131-3
	Cu	0.1998	0.50	0.032	7440-50-8	231-159-6
subtotal		39.9600	100.00	6.367		
Encapsulation	epoxy resin	80.7840	30.00	12.872	/	/
	SiO ₂	121.1760	45.00	19.308	/	/
	Flame Retardant	45.7776	17.00	7.294	/	/
	Pigment	21.5424	8.00	3.433	/	/
subtotal		269.2800	100.00	42.906		
All parts total		627.6000		100.000		

Material Declaration for L13XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al2 O3	204.3187	96.60	30.051	1344-28-1	215-691-6
	Si O2	4.4417	2.10	0.653	14808-60-7	238-878-4
	Mg O	2.3266	1.10	0.342	1309-48-4	215-171-9
	CaO	0.4230	0.20	0.062	1305-78-8	215-138-9
subtotal		211.5100	100.00	31.109		
Protective Coating (G1)	Bi2O3	1.0140	60.00	0.149	1304-76-3	215-134-7
	SiO2	0.5915	35.00	0.087	14808-60-7	238-878-4
	Cr2O3	0.0845	5.00	0.012	1308-38-9	215-160-9
subtotal		1.6900	100.00	0.249		
Resistive Element	RuO2	0.7001	15.84	0.103	12036-10-1	234-840-6
	PbO	1.8599	42.08	0.274	1317-36-8	215-267-0
	SiO2	0.7439	16.83	0.109	14808-60-7	238-878-4
	B2O3	0.2603	5.89	0.038	1303-86-2	215-125-8
	Al2 O3	0.7439	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.1114	2.52	0.016	1314-13-2	215-222-5
subtotal		4.4200	100.00	0.650		
Termination Ag/Pd	Ag	7.1814	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0782	1.02	0.012	7440-5-3	231-115-6
	Glass	0.4172	5.44	0.061	65997-18-4	266-047-6
subtotal		7.6700	100.00	1.129		
Lead Frame	Fe	102.6886	85.86	15.103	7439-89-6	231-096-4
	Sn	16.9114	14.14	2.487	7440-31-5	231-141-8
subtotal		119.6000	100.00	17.591		
Sn	Sn	42.6407	98.50	6.272	07440-31-5	231-141-8
	Ag	0.4329	1.00	0.064	7440-22-4	231-131-3
	Cu	0.2165	0.50	0.032	7440-50-8	231-159-6
subtotal		43.2900	100.00	6.367		
Encapsulation	epoxy resin	87.5160	30.00	12.872	/	/
	SiO2	131.2740	45.00	19.308	/	/
	Flame Retardant	49.5924	17.00	7.294	/	/
	Pigment	23.3376	8.00	3.433	/	/

Material Declaration for L14XXXXLF

Part	Material	Weight(mg)	% of part	% of component	CAS NO.	ECN NO
Alumina Substrate	Al ₂ O ₃	220.0355	96.60	30.051	1344-28-1	215-691-6
	SiO ₂	4.7834	2.10	0.653	14808-60-7	238-878-4
	MgO	2.5056	1.10	0.342	1309-48-4	215-171-9
	CaO	0.4556	0.20	0.062	1305-78-8	215-138-9
subtotal		227.7800	100.00	31.109		
Protective Coating (G1)	Bi ₂ O ₃	1.0920	60.00	0.149	1304-76-3	215-134-7
	SiO ₂	0.6370	35.00	0.087	14808-60-7	238-878-4
	Cr ₂ O ₃	0.0910	5.00	0.012	1308-38-9	215-160-9
subtotal		1.8200	100.00	0.249		
Resistive Element	RuO ₂	0.7540	15.84	0.103	12036-10-1	234-840-6
	PbO	2.0030	42.08	0.274	1317-36-8	215-267-0
	SiO ₂	0.8011	16.83	0.109	14808-60-7	238-878-4
	B ₂ O ₃	0.2804	5.89	0.038	1303-86-2	215-125-8
	Al ₂ O ₃	0.8011	16.83	0.109	1344-28-1	215-691-6
	ZnO	0.1200	2.52	0.016	1314-13-2	215-222-5
subtotal		4.7600	100.00	0.650		
Termination Ag/Pd	Ag	7.7338	93.63	1.056	7440-22-4	231-131-3
	Pd	0.0843	1.02	0.012	7440-5-3	231-115-6
	Glass	0.4493	5.44	0.061	65997-18-4	266-047-6
subtotal		8.2600	100.00	1.129		
Lead Frame	Fe	110.5877	85.86	15.103	7439-89-6	231-096-4
	Sn	18.2123	14.14	2.487	7440-31-5	231-141-8
subtotal		128.8000	100.00	17.591		
Sn	Sn	45.9207	98.50	6.272	07440-31-5	231-141-8
	Ag	0.4662	1.00	0.064	7440-22-4	231-131-3
	Cu	0.2331	0.50	0.032	7440-50-8	231-159-6
subtotal		46.6200	100.00	6.367		
Encapsulation	epoxy resin	94.2480	30.00	12.872	/	/
	SiO ₂	141.3720	45.00	19.308	/	/
	Flame Retardant	53.4072	17.00	7.294	/	/
	Pigment	25.1328	8.00	3.433	/	/
subtotal		314.1600	100.00	42.906		
All parts total		732.2000		100.000		