



Material Declaration Data Sheet

SM2615 (Formerly SM 1)

Surface Mount Wirewound Resistor



Date: **November 7, 2012** Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)
 Component Weight (mg): **220.00**

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	104.99	477,216	96.00%	109.36	49.71%
	silicon oxide	7631-86-9	2.19	9,942	2.00%		
	magnesium oxide	1309-48-4	1.09	4,971	1.00%		
	calcium oxide	1305-78-8	1.09	4,971	1.00%		
Cap and leads	steel	7439-89-6	3.14	14,294	35.12%	8.95	4.07%
	copper	7440-50-8	4.95	22,491	55.26%		
	nickel	7440-02-0	0.59	2,678	6.58%		
	tin	7440-31-5	0.27	1,237	3.04%		
Resistive element	nickel	7440-02-0	1.77	8,055	53.70%	3.30	1.50%
	chromium	7440-47-3	1.53	6,945	46.30%		
Molded body	glass fiber	65997-17-3	11.80	53,640	12.00%	98.34	44.70%
	crystalite	14464-46-1	0.79	3,576	0.80%		
	amorphous silica	60676-86-0	67.70	307,715	68.84%		
	phenol	108-95-2	0.30	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	16.78	76,258	17.06%		
	phenolic polymer	9003-35-4	0.98	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.02	96	47.81%	0.04	0.02%
	xylene	1330-20-7	0.00	10	5.05%		
	aromatic solvent	64742-94-5	0.02	94	47.14%		
Total Weight			220.00				

Weights are approximate.



Material Declaration Data Sheet

SM4124 (Formerly SM 2)

Surface Mount Wirewound Resistor



Date: **November 7, 2012** Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)
 Component Weight (mg): **660.00**

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	314.96	477,216	96.00%	328.09	49.71%
	silicon oxide	7631-86-9	6.56	9,942	2.00%		
	magnesium oxide	1309-48-4	3.28	4,971	1.00%		
	calcium oxide	1305-78-8	3.28	4,971	1.00%		
Cap and leads	steel	7439-89-6	9.43	14,294	35.12%	26.86	4.07%
	copper	7440-50-8	14.84	22,491	55.26%		
	nickel	7440-02-0	1.77	2,678	6.58%		
	tin	7440-31-5	0.82	1,237	3.04%		
Resistive element	nickel	7440-02-0	5.32	8,055	53.70%	9.90	1.50%
	chromium	7440-47-3	4.58	6,945	46.30%		
Molded body	glass fiber	65997-17-3	35.40	53,640	12.00%	295.02	44.70%
	cristobalite	14464-46-1	2.36	3,576	0.80%		
	amorphous silica	60676-86-0	203.09	307,715	68.84%		
	phenol	108-95-2	0.89	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	50.33	76,258	17.06%		
	phenolic polymer	9003-35-4	2.95	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.06	96	47.81%	0.13	0.02%
	xylene	1330-20-7	0.01	10	5.05%		
	aromatic solvent	64742-94-5	0.06	94	47.14%		
Total Weight			660.00				

Weights are approximate.



Material Declaration Data Sheet

SM4527 (Formerly SM 2A)

Surface Mount Wirewound Resistor



Date: **November 7, 2012** Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)
 Component Weight (mg): **781.50**

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	372.94	477,216	96.00%	388.48	49.71%
	silicon oxide	7631-86-9	7.77	9,942	2.00%		
	magnesium oxide	1309-48-4	3.88	4,971	1.00%		
	calcium oxide	1305-78-8	3.88	4,971	1.00%		
Cap and leads	steel	7439-89-6	11.17	14,294	35.12%	31.81	4.07%
	copper	7440-50-8	17.58	22,491	55.26%		
	nickel	7440-02-0	2.09	2,678	6.58%		
	tin	7440-31-5	0.97	1,237	3.04%		
Resistive element	nickel	7440-02-0	6.29	8,055	53.70%	11.72	1.50%
	chromium	7440-47-3	5.43	6,945	46.30%		
Molded body	glass fiber	65997-17-3	41.92	53,640	12.00%	349.33	44.70%
	crystalite	14464-46-1	2.79	3,576	0.80%		
	amorphous silica	60676-86-0	240.48	307,715	68.84%		
	phenol	108-95-2	1.05	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	59.60	76,258	17.06%		
	phenolic polymer	9003-35-4	3.49	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.07	96	47.81%	0.16	0.02%
	xylene	1330-20-7	0.01	10	5.05%		
	aromatic solvent	64742-94-5	0.07	94	47.14%		
Total Weight			781.50				

Weights are approximate.



Material Declaration Data Sheet

SMH4527 (Formerly SM 3A)

Surface Mount Wirewound Resistor



Date: **November 7, 2012** Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)
 Component Weight (mg): **781.50**

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	372.94	477,216	96.00%	388.48	49.71%
	silicon oxide	7631-86-9	7.77	9,942	2.00%		
	magnesium oxide	1309-48-4	3.88	4,971	1.00%		
	calcium oxide	1305-78-8	3.88	4,971	1.00%		
Cap and leads	steel	7439-89-6	11.17	14,294	35.12%	31.81	4.07%
	copper	7440-50-8	17.58	22,491	55.26%		
	nickel	7440-02-0	2.09	2,678	6.58%		
	tin	7440-31-5	0.97	1,237	3.04%		
Resistive element	nickel	7440-02-0	6.29	8,055	53.70%	11.72	1.50%
	chromium	7440-47-3	5.43	6,945	46.30%		
Molded body	glass fiber	65997-17-3	41.92	53,640	12.00%	349.33	44.70%
	crystalite	14464-46-1	2.79	3,576	0.80%		
	amorphous silica	60676-86-0	240.48	307,715	68.84%		
	phenol	108-95-2	1.05	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	59.60	76,258	17.06%		
	phenolic polymer	9003-35-4	3.49	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.07	96	47.81%	0.16	0.02%
	xylene	1330-20-7	0.01	10	5.05%		
	aromatic solvent	64742-94-5	0.07	94	47.14%		
Total Weight			781.50				

Weights are approximate.



Material Declaration Data Sheet

SM6227 (Formerly SM 3)

Surface Mount Wirewound Resistor

Date: **November 7, 2012**
 Component Weight (mg): **1,560.00**

Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	744.46	477,216	96.00%	775.48	49.71%
	silicon oxide	7631-86-9	15.51	9,942	2.00%		
	magnesium oxide	1309-48-4	7.75	4,971	1.00%		
	calcium oxide	1305-78-8	7.75	4,971	1.00%		
Cap and leads	steel	7439-89-6	22.30	14,294	35.12%	63.49	4.07%
	copper	7440-50-8	35.09	22,491	55.26%		
	nickel	7440-02-0	4.18	2,678	6.58%		
	tin	7440-31-5	1.93	1,237	3.04%		
Resistive element	nickel	7440-02-0	12.57	8,055	53.70%	23.40	1.50%
	chromium	7440-47-3	10.83	6,945	46.30%		
Molded body	glass fiber	65997-17-3	83.68	53,640	12.00%	697.32	44.70%
	crystalite	14464-46-1	5.58	3,576	0.80%		
	amorphous silica	60676-86-0	480.04	307,715	68.84%		
	phenol	108-95-2	2.09	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	118.96	76,258	17.06%		
	phenolic polymer	9003-35-4	6.97	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.15	96	47.81%	0.31	0.02%
	xylene	1330-20-7	0.02	10	5.05%		
	aromatic solvent	64742-94-5	0.15	94	47.14%		
Total Weight			1,560.00				

Weights are approximate.



Material Declaration Data Sheet

SM8035 (Formerly SM 4)

Surface Mount Wirewound Resistor

Date: **November 7, 2012**
 Component Weight (mg): **3,320.00**

Max Temp: **260°C** (Contact factory for detailed soldering recommendations.)

BOM Item	Material	CAS Number	Material Weight (mg)	Material PPM of Component	Material % of BOM Item	BOM Item Weight (mg)	BOM Item % of Component
Ceramic core	aluminum oxide	1344-28-1	1584.36	477,216	96.00%	1650.37	49.71%
	silicon oxide	7631-86-9	33.01	9,942	2.00%		
	magnesium oxide	1309-48-4	16.50	4,971	1.00%		
	calcium oxide	1305-78-8	16.50	4,971	1.00%		
Cap and leads	steel	7439-89-6	47.46	14,294	35.12%	135.12	4.07%
	copper	7440-50-8	74.67	22,491	55.26%		
	nickel	7440-02-0	8.89	2,678	6.58%		
	tin	7440-31-5	4.11	1,237	3.04%		
Resistive element	nickel	7440-02-0	26.74	8,055	53.70%	49.80	1.50%
	chromium	7440-47-3	23.06	6,945	46.30%		
Molded body	glass fiber	65997-17-3	178.08	53,640	12.00%	1484.04	44.70%
	crystalite	14464-46-1	11.87	3,576	0.80%		
	amorphous silica	60676-86-0	1021.61	307,715	68.84%		
	phenol	108-95-2	4.45	1,341	0.30%		
	epoxy novolac polymer	9003-36-5	253.18	76,258	17.06%		
	phenolic polymer	9003-35-4	14.84	4,470	1.00%		
Part marking	silicone dioxide	14808-60-7	0.32	96	47.81%	0.66	0.02%
	xylene	1330-20-7	0.03	10	5.05%		
	aromatic solvent	64742-94-5	0.31	94	47.14%		
Total Weight			3,320.00				

Weights are approximate.