



2835 Kemet way Simpsonville,
South Carolina 29681, USA

MATERIALS DECLARATION

Ceramic Capacitor

Product family :	SMD	KEMET Part Number(s) :	C1808XXXXXXRAC, C1812XXXXXXRAC, C1825XXXXXXRAC, C2225XXXXXXRAC
Weight (1808) :	103.2 mg	RoHS Compliant :	YES
Weight (1812) :	134.182 mg	EIA Size(s) :	1808 / 1812 / 1825 / 2225
Weight (1825) :	212.6 mg	EIA Dielectric :	X7R
Weight (2225) :	355.6 mg	Cap, Volt, Tolerance :	all
Date :	2/5/2008	Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by weight	Sum %
Ceramic body & Dielectric	Barium	Ba	7440-39-3	44.1%	93.0%
	Oxygen	O	7782-44-7	17.2%	
	Titanium	Ti	7440-32-6	16.5%	
	Silver	Ag	7440-22-4	6.2%	
	Bismuth	Bi	7440-69-9	5.0%	
	Palladium	Pd	7440-05-3	1.8%	
	Lead	Pb	7439-92-1	0.7%	
	Miscellaneous	-----	-----	1.5%	
Termination	Silver	Ag	7440-22-4	5.2%	7.0%
	Tin	Sn	7440-31-5	1.0%	
	Nickel	Ni	7440-02-0	0.8%	

Total SUM	100.0%
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3) The lead contained in these parts is located in the CERAMIC matrix wich is exempted per RoHS annex I. (RoHS exemptions # 5,7)

4) Values (%) are based on engineering calculations and do not represent exact ammount contained in product.

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MATERIALS DECLARATION

Ceramic Capacitor

Product family :	SMD	KEMET Part Number(s) :	C0402XXXXXXGAC, C0603XXXXXXGAC, C0805XXXXXXGAC
Weight (0402) :	1.2114 mg	RoHS Compliant :	YES
Weight (0603) :	4.627 mg	EIA Size(s) :	0402 / 0603 / 0805
Weight (0805) :	9.972 mg	EIA Dielectric :	NPO
Date :	2/5/2008	Cap, Volt, Tolerance :	all
		Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by weight	Sum %
Ceramic body & Dielectric	Oxygen	O	7782-44-7	24.3%	95.4%
	Calcium	Ca	7440-70-2	12.7%	
	Strontium	Sr	7440-24-6	12.1%	
	Zirconium	Zr	7440-67-7	38.1%	
	Nickel (in electrode)	Ni	7440-02-0	6.4%	
	Miscellaneous	----	----	1.8%	
Termination	Nickel	Ni	7440-02-0	0.4%	4.6%
	Copper	Cu	7440-50-8	3.7%	
	Tin	Sn	7440-31-5	0.5%	
Total SUM				100.0%	

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MATERIALS DECLARATION

Ceramic Capacitor

Product family :	SMD	KEMET Part Number(s) :	C0402XXXXXXRAC, C0603XXXXXXRAC, C0805XXXXXXRAC, C0603XXXXXXVAC, C1206XXXXXXRAC, C1210XXXXXXRAC, C1210XXXXXXVAC, C0805XXXXXXUAC, C1812XXXXXXRAC, C1825XXXXXXRAC
Weight (0402) :	1.4 mg	RoHS Compliant :	YES
Weight (0603) :	6.0 mg	EIA Size(s) :	0402 / 0603 / 0805 / 1206 / 1210 / 1812 / 1825
Weight (0805) :	18.9 mg	EIA Dielectric :	Y5V / X7R / Z5U
Weight (1206) :	47.5 mg	Cap, Volt, Tolerance :	all
Weight (1210) :	83.4 mg	Customer part number(s) :	Not specified
Weight (1812) :	117.2 mg		
Weight (1825) :	247.8 mg		
Date :	2/5/2008		

Construction Element	Substance	Comm. name	CAS #	Max. % by weight	Sum %
Ceramic body & Dielectric	Barium	Ba	7440-39-3	48.4%	96.1%
	Oxygen	O	7782-44-7	20.3%	
	Titanium	Ti	7440-32-6	16.9%	
	Nickel (in electrode)	Ni	7440-02-0	9.6%	
	Miscellaneous	----	----	0.9%	
Termination	Copper	Cu	7440-50-8	2.9%	3.9%
	Nickel	Ni	7440-02-0	0.2%	
	Tin	Sn	7440-31-5	0.5%	
	Miscellaneous	----	----	0.3%	

Total SUM	100.0%
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MATERIALS DECLARATION

Ceramic Capacitor

Product family :	SMD	KEMET Part Number(s) :	C0201XXXXXXPAC, C0402XXXXXXPAC, C0603XXXXXXPAC, C0805XXXXXXPAC, C1206XXXXXXPAC, C1210XXXXXXPAC
Weight (0201) :	0.32 mg	RoHS Compliant :	YES
Weight (0402) :	1.591 mg	EIA Size(s) :	0201 / 0402 / 0603 / 0805 / 1206 / 1210
Weight (0603) :	5.948 mg	EIA Dielectric :	X5R
Weight (0805) :	21.203 mg	Cap, Volt, Tolerance :	all
Weight (1206) :	44.712 mg	Customer part number(s) :	Not specified
Weight (1210) :	81.501 mg		
Date :	2/5/2008		

Construction Element	Substance	Comm. name	CAS #	Max. % by weight	Sum %
Ceramic body & Dielectric	Oxygen	O	7782-44-7	13.9%	95.0%
	Titanium	Ti	7440-32-6	13.5%	
	Barium	Ba	7440-39-3	38.9%	
	Nickel (in electrode)	Ni	7440-02-0	27.8%	
	Miscellaneous	----	----	0.8%	
Termination	Nickel	Ni	7440-02-0	0.6%	5.0%
	Copper	Cu	7440-50-8	2.6%	
	Tin	Sn	7440-31-5	1.8%	

Total SUM	100.0%
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MATERIALS DECLARATION

Ceramic Through Hole Capacitor

Product family :	TH	KEMET Part Number(s) :	C3XXXXXXXXXG5TA
Weight C3xx (0805) :	148.6 mg	RoHS Compliant :	Yes
Date :	2/5/2008	EIA Dielectric :	C0G / NPO
		Cap, Volt, Tolerance :	all
		Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by Homogeneous	Sum %
Ceramic Body (internal Chip)	Oxygen	O	7782-44-7	25.60%	100.0%
	Calcium	Ca	7440-70-2	13.40%	
	Strontium	Sr	7440-24-6	12.80%	
	Zirconium	Zr	7440-67-7	40.10%	
	Nickel	Ni	7440-02-0	6.50%	
	Miscellaneous	----	----	1.60%	
Termination (internal Chip)	Copper	Cu	7440-50-8	55.10%	100.0%
	Tin	Sn	7440-31-5	23.90%	
	Nickel	Ni	7440-02-0	16.40%	
	Miscellaneous	----	----	4.60%	
Solder (internal lead-attach)	Silver	Ag	7440-22-4	5.00%	100.0%
	Tin	Sn	7440-31-5	95.00%	
Wire (Pb-free)	Iron	Fe	7439-89-6	0.40%	100.0%
	Tin	Sn	7440-31-5	98.60%	
	Misc.	----	----	1.00%	
Epoxy (Moding case)	Silicon	----	----	18.86%	100.0%
	Oxygen	O	7782-44-7	30.55%	
	Iron	Fe	7439-89-6	2.98%	
	Resin	----	----	47.61%	

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MATERIALS DECLARATION

Ceramic Through Hole Capacitor

Product family :	TH	KEMET Part Number(s) :	C3XXXXXXXXR5TA, C3XXXXXXXXU5TA
Weight C3xx (0805) :	139.4 mg	RoHS Compliant :	Yes
Weight C3xx (1813) :	241.8 mg	EIA Dielectric :	X7R
Date :	2/5/2008	Cap, Volt, Tolerance :	all
		Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by Homogeneous	Sum %
Ceramic Body (internal Chip)	Barium	Ba	7440-39-3	48.42%	100.0%
	Oxygen	O	7782-44-7	20.31%	
	Titanium	Ti	7440-32-6	16.88%	
	Nickel (in electrode)	Ni	7440-02-0	13.10%	
	Miscellaneous	----	----	1.30%	
Termination (internal Chip)	Copper	Cu	7440-50-8	57.93%	100.0%
	Nickel	Ni	7440-02-0	10.29%	
	Tin	Sn	7440-31-5	31.78%	
Solder (internal lead-attach)	Silver	Ag	7440-22-4	95.00%	100.0%
	Tin	Sn	7440-31-5	5.00%	
Wire (Pb-free)	Iron	Fe	7439-89-6	0.40%	100.0%
	Tin	Sn	7440-31-5	98.60%	
	Misc.	----	----	1.00%	
Epoxy (Moding case)	Silicon	----	----	18.86%	100.0%
	Oxygen	O	7782-44-7	30.55%	
	Iron	Fe	7439-89-6	2.98%	
	Resin	----	----	47.61%	

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MATERIALS DECLARATION

Ceramic Through Hole Capacitor

Product family :	TH	KEMET Part Number(s) :	C4XXXXXXXXG5TA
Weight C4xx (0805) :	131.8 mg	RoHS Compliant :	Yes
Date :	2/5/2008	EIA Dielectric :	C0G / NPO
		Cap, Volt, Tolerance :	all
		Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by Homogeneous	Sum %
Ceramic Body (internal Chip)	Oxygen	O	7782-44-7	25.60%	100.0%
	Calcium	Ca	7440-70-2	13.40%	
	Strontium	Sr	7440-24-6	12.80%	
	Zirconium	Zr	7440-67-7	40.10%	
	Nickel	Ni	7440-02-0	6.50%	
	Miscellaneous	----	----	1.60%	
Termination (internal Chip)	Nickel	Ni	7440-02-0	55.10%	100.0%
	Copper	Cu	7440-50-8	21.00%	
	Tin	Sn	7440-31-5	23.90%	
Solder (internal lead-attach)	Tin	Sn	7440-31-5	95.00%	100.0%
	Silver	Ag	7440-22-4	5.00%	
Wire (Pb-free)	Iron	Fe	7439-89-6	0.40%	100.0%
	Tin	Sn	7440-31-5	98.60%	
	Misc.	----	----	1.00%	
Epoxy (Moding case)	Resin	----	----	50.00%	100.0%
	Oxygen	O	7782-44-7	30.00%	
	Silicon	----	----	20.00%	

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MATERIALS DECLARATION

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Product family :	TH	KEMET Part Number(s) :	C4XXXXXXXXR5TA, C4XXXXXXXXU5TA
Weight C4xx (0805) :	127.4 mg	RoHS Compliant :	Yes
		EIA Dielectric :	X7R
		Cap, Volt, Tolerance :	all
Date :	2/5/2008	Customer part number(s) :	Not specified

Construction Element	Substance	Comm. name	CAS #	Max. % by Homogeneous	Sum %
Ceramic Body (internal Chip)	Barium	Ba	7440-39-3	51.34%	100.0%
	Oxygen	O	7782-44-7	21.20%	
	Titanium	Ti	7440-32-6	17.89%	
	Nickel (in electrode)	Ni	7440-02-0	9.35%	
	Miscellaneous	----	----	0.22%	
Termination (internal Chip)	Copper	Cu	7440-50-8	64.97%	100.0%
	Tin	Sn	7440-31-5	25.23%	
	Nickel	Ni	7440-02-0	9.80%	
Solder (internal lead-attach)	Tin	Sn	7440-31-5	95.00%	100.0%
	Silver	Ag	7440-22-4	5.00%	
Wire (Pb-free)	Iron	Fe	7439-89-6	0.40%	100.0%
	Tin	Sn	7440-31-5	98.60%	
	Misc.	----	----	1.00%	
Epoxy (Moding case)	Resin	----	----	50.00%	100.0%
	Oxygen	O	7782-44-7	30.00%	
	Silicon	----	----	20.00%	

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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
Weight (T49_C) :	224.5 mg	RoHS Compliant :	YES
Weight (T49_X) :	652 mg	EIA Size (T49_C) :	6032-28
Date :	2/5/2008	EIA Size (T49_X) :	7343-43
		KEMET P/N :	T49_CXXXXXXXXAT, T49_XXXXXXXXAT
		Customer P/N :	See next page

Construction Element	Substance	Comm. Name	T49_C	T49_X
			Max. %	Max. %
Tantalum Anode	Tantalum	Ta	24.92%	37.15%
	Manganese	Mn	7.89%	6.72%
	Silver	Ag	4.43%	3.77%
	Oxygen	O	4.70%	4.04%
	Fluorine	F	0.14%	0.07%
	Misc.	----	0.67%	0.02%
Leadframe	Copper	Cu	5.36%	3.00%
	Nickel	Ni	0.00%	0.84%
	Zinc	Zn	0.01%	0.79%
	Tin	Sn	0.55%	0.46%
	Iron	Fe	0.13%	0.01%
	Misc.	----	0.00%	0.60%
Molding Case	Oxygen	O	21.90%	18.21%
	Silicon	Si	16.95%	14.09%
	Carbon	C	10.23%	8.50%
	Iron	Fe	0.38%	0.32%
	Misc.	-----	1.74%	1.41%

Total SUM	100.0%	100.0%
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2835 Kemet way Simpsonville,
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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
Weight (B45) :	34.193 mg	RoHS Compliant :	YES
Date :	2/5/2008	EIA Size (B45_A) :	3216-18
		KEMET P/N :	B45010A1069K208
		Customer P/N :	Not specified

Construction Element	Substance	CAS #:	B45_A
			Max. %
Anode	Ta	7440-25-7	27.08%
	Peso Ta2O5	1314-61-0	2.82%
	Carbono	7440-44-0	0.58%
	Ag	7440-22-4	2.24%
	MnO2	1313-13-9	3.77%
	PTFE	----	0.03%
Terminal	Ni	7440-02-0	8.93%
	Fe	7439-89-6	12.52%
	Cu	7440-50-8	0.33%
	Ni underlayer	7440-02-0	0.16%
	Sn	7440-31-5	1.15%
	Adesivo de prata	7440-22-4	3.89%
Resin	Antimontrioxide Sb2O3(mg)	1309-64-4	1.28%
	Phenol, 4,4' TBBPA-resin(mg)	40039-93-8	0.36%
	Silica, vitreous SiO2(mg)	60676-86-0	24.45%
	Titanium-dioxide TiO2(mg)	13463-67-7	1.82%
	Epoxy Resin (Diethylene glycol polymer with 1-Cl-2,3 Epoxy propane (mg)	25928-94-3	8.58%

Total SUM	100.0%
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2835 Kemet way Simpsonville,
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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
		RoHS compliant :	No
Weight (T510_X) :	440.6 mg	EIA Size (T510_X) :	7343-31
		KEMET P/N :	T510XXXXXXXXAH
Date :	2/5/2008	Customer P/N :	Not specified

Construction Element	Substance	Comm. Name	T510X Max. %
Tantalum Anode	Tantalum	Ta	15.02%
	Manganese	Mn	5.61%
	Silver	Ag	4.34%
	Fluorine	F	0.17%
	Oxygen	O	3.33%
	Misc.	----	0.80%
Leadframe	Copper	Cu	6.73%
	Zinc	Zn	0.01%
	Lead	Pb	0.07%
	Tin	Sn	0.62%
	Misc.	----	0.01%
Molding Case	Oxygen	O	27.01%
	Silicon	Si	20.91%
	Carbon	C	12.62%
	Iron	Fe	0.63%
	Hydrogen	H	1.42%
	Misc.	----	0.71%
Total SUM			100.0%

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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
Weight (T52x_V) :	262.09 mg	RoHS compliant :	YES
Weight (T52x_X) :	536.1 mg	EIA Size (T52x_V) :	7343-20
Weight (T52x_Y) :	454 mg	EIA Size (T52x_X) :	7343-43
		EIA Size (T52x_Y) :	7343-40
		KEMET P/N :	T520VXXXXXXXXAT, T520XXXXXXXXAT, T520YXXXXXXXXAT
Date :	2/5/2008	Customer P/N :	see next page

Construction Element	Substance	Comm. Name	T520V	T520X	T520Y
			Max. %	Max. %	Max. %
Tantalum Anode	Tantalum	Ta	25.77%	34.53%	27.48%
	Carbon	C	3.41%	2.22%	1.68%
	Oxygen	O	0.31%	0.27%	0.17%
	Silver	Ag	7.40%	4.32%	4.79%
	Fluorine	F	0.35%	0.24%	0.96%
	Misc.	----	0.24%	0.19%	0.18%
Leadframe	Copper	Cu	11.31%	5.53%	6.53%
	Tin	Sn	1.15%	0.56%	0.67%
	Zinc	Zn	0.02%	0.01%	0.00%
	Misc.	----	0.12%	0.01%	0.23%
Molding Case	Oxygen	O	21.23%	22.24%	24.52%
	Silicon	Si	16.47%	17.25%	19.02%
	Iron	Fe	0.64%	0.52%	0.43%
	Carbon	C	9.92%	10.39%	11.46%
	Misc.	----	1.66%	1.72%	1.88%
Total SUM			100.0%	100.0%	100.0%

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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
Weight (T52x_X) :	536.1 mg	RoHS compliant :	No
		EIA Size (T52x_X) :	7343-43
		KEMET P/N :	T520XXXXXXXXAH
Date :	2/5/2008	Customer P/N :	see next page

Construction Element	Substance	Comm. Name	T520X
			Max. %
Tantalum Anode	Tantalum	Ta	34.53%
	Carbon	C	2.22%
	Oxygen	O	0.27%
	Silver	Ag	4.32%
	Fluorine	F	0.24%
	Misc.	----	0.19%
Leadframe	Copper	Cu	5.52%
	Lead	Pb	0.06%
	Tin	Sn	0.51%
	Misc.	----	0.02%
Molding Case	Oxygen	O	22.24%
	Silicon	Si	17.25%
	Iron	Fe	0.52%
	Carbon	C	10.39%
	Misc.	----	1.72%

Total SUM	100.0%
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MATERIALS DECLARATION

Tantalum Capacitor

Product family :	SMD	KEMET description :	Tantalum SMD Capacitor
Weight (T53x_X) :	415.7mg	RoHS compliant :	YES
		EIA Size (T53x_X) :	7343-43
		KEMET P/N :	T530XXXXXXXXXATE010
Date :	2/5/2008	Customer P/N :	Not specified

			T530X
Construction Element	Substance	Comm. Name	Max. %
Tantalum Anode	Tantalum	Ta	17.38%
	Carbon	C	1.61%
	Silver	Ag	4.69%
	Oxygen	O	0.21%
	Fluorine	F	0.91%
	Misc.	----	0.17%
Leadframe	Copper	Cu	7.13%
	Tin	Sn	0.73%
	Misc.	----	0.19%
Molding Case	Oxygen	O	28.66%
	Silicon	Si	22.23%
	Iron	Fe	0.50%
	Carbon	C	13.39%
	Misc.	----	2.20%
Total SUM			100.0%

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MATERIALS DECLARATION

Aluminum Capacitor

Product family :	SMD	KEMET description :	Aluminum SMD Capacitor
Weight (A700 V) :	120 mg	EIA Size (A700 V) :	7343-31
Date :	2/5/2008	KEMET P/N :	A700VXXXXXXAT
		Customer P/N :	Not specified

Construction Element	Substance	Comm. Name	A700 V
			Max. %
Capacitor Element	Aluminum	Al	7.33%
Mask	Polyimede	-----	0.40%
	Conductive Polymer	-----	2.45%
Conductive paste	Carbon	C	0.51%
	Silver	Ag	5.82%
	Fluorine contained resin	F	1.24%
Molding Resin	Fused Silica	SiO ₂	49.93%
	Epoxy Resin	-----	18.50%
	Brominated epoxy resin	Br	1.43%
	Antimony trioxide	Sb ₂ O ₃	1.46%
Leadframe	Copper	Cu	10.22%
	Nickel	Ni	0.15%
	Tin	Sn	0.60%

Total SUM	100.0%
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