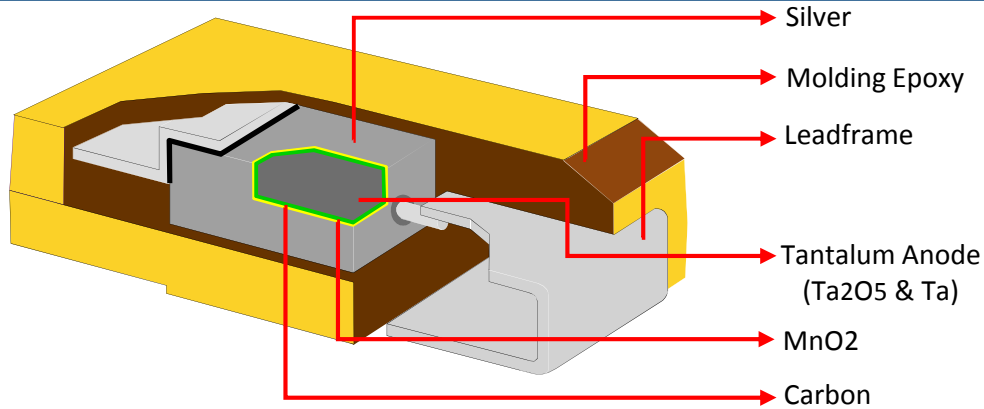


Material Declaration

Tantalum MnO2 Surface Mount Capacitor(T49X series)



Environmental Compliance	
Pb Free	YES
RoHS Compliant	YES
Halogen Free	YES

Homogeneous Level	Construction Element	Substance	Weight	Common Name	CAS #	SGS Report No.
Anode	Tantalum Anode	Tantalum	See Annex 6	Ta	7440-25-7	CE/2016/83943
		Tantalum pentoxide		Ta ₂ O ₅	1314-61-0	
	Manganese dioxide	Manganese dioxide		MnO ₂	1313-13-9	CE/2016/93590
	Carbon	Carbon		C	7440-44-0	CE/2016/93591
	Silver	Silver		Ag	7440-22-4	CE/2015/83606
Leadframe	Leadframe	Alloy		Cu	7440-50-8	CE/2016/93425
				Fe	7439-89-6	
				Zn	7440-66-6	
				Ni	7440-02-0	
				Sn	7440-31-5	
			Ag	7440-22-4		
Molding Epoxy	Molding Epoxy	Epoxy				CE/2016/93422

Annex 6

Material Declaration

Tantalum MnO2 Surface Mount Capacitor(T49X series)

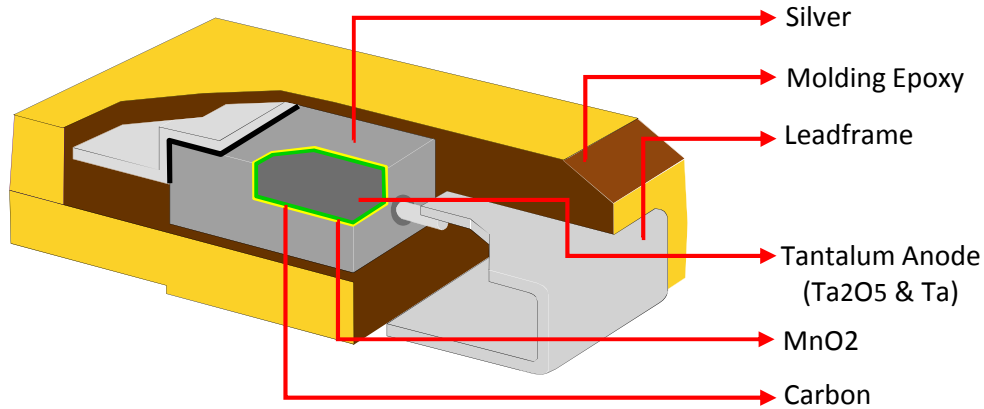


Series				T49X				
Case code				A(3216-18)	B(3216-21)	C(6032-25)	D(7343-31)	V(7343-19)
Homogeneous Level	Material	Substance	CAS No.	weight [mg]	weight [mg]	weight [mg]	weight [mg]	weight [mg]
Anode	Tantalum	Ta	7440-25-7	9.17	22.02	56.00	109.01	61.38
	Manganese	MnO2	1313-13-9	7.81	14.45	28.23	44.64	36.80
	Carbon	C	7440-44-0	0.10	0.07	0.14	0.29	0.19
	Silver	Ag	7440-22-4	1.41	2.60	5.07	8.00	6.61
	Fluorine	F	7782-41-4	0.23	0.06	0.11	0.38	0.15
	Miscellaneous		-	0.01	0.02	0.05	0.07	0.04
Homogeneous Level Weight				18.73	39.22	89.60	162.39	105.17
Leadframe	Base metal	Cu	7440-50-8	7.85	7.85	7.85	19.32	19.32
		Fe	7439-89-6	0.03	0.03	0.03	0.08	0.08
		Zn	7440-66-6	2.09	2.09	2.09	5.13	5.13
		Miscellaneous	-	0.09	0.09	0.09	0.23	0.23
	Under layer	Ni	7440-02-0	2.33	2.33	2.33	5.74	5.74
	Finish plating	Sn	7440-31-5	1.22	1.22	1.22	3.01	3.01
	Conductive Adhesive*	Ag	7440-22-4	4.90	4.90	4.90	12.05	12.05
		C	7440-44-0	1.21	1.21	1.21	2.97	2.97
Homogeneous Level Weight				19.72	19.72	19.72	48.53	48.53
Molding Epoxy	Molding Epoxy	SiO ₂	7631-86-9	15.58	32.92	87.23	152.93	93.82
		Carbon	7440-44-0	4.10	8.67	22.98	40.28	24.71
		Iron	7439-89-6	0.15	0.33	0.86	1.51	0.93
		Miscellaneous	-	0.69	1.44	3.81	6.69	4.10
Homogeneous Level Weight				20.52	43.36	114.88	201.41	123.56
Total Weight				58.97	102.30	224.20	412.33	277.26

* This was tested as part of the Leadframe Finish Plating.

Material Declaration

Tantalum MnO₂ Surface Mount Capacitor(T51X series)



Environmental Compliance	
Pb Free	YES
RoHS Compliant	YES
Halogen Free	YES

Homogeneous Level	Construction Element	Substance	Weight	Common Name	CAS #	SGS Report No.
Anode	Tantalum Anode	Tantalum	See Annex 7	Ta	7440-25-7	CE/2016/83943
		Tantalum pentoxide		Ta ₂ O ₅	1314-61-0	
	Manganese dioxide	Manganese dioxide		MnO ₂	1313-13-9	CE/2016/93590
	Carbon	Carbon		C	7440-44-0	CE/2016/93591
	Silver	Silver		Ag	7440-22-4	CE/2015/83606
Leadframe	Leadframe	Alloy		Cu	7440-50-8	CE/2016/93425
				Zn	7440-66-6	
				Ni	7440-02-0	
				Sn	7440-31-5	
				Ag	7440-22-4	
Molding Epoxy	Molding Epoxy	Epoxy				CE/2016/93422

Annex 7

Material Declaration

Tantalum MnO2 Surface Mount Capacitor(T51X series)

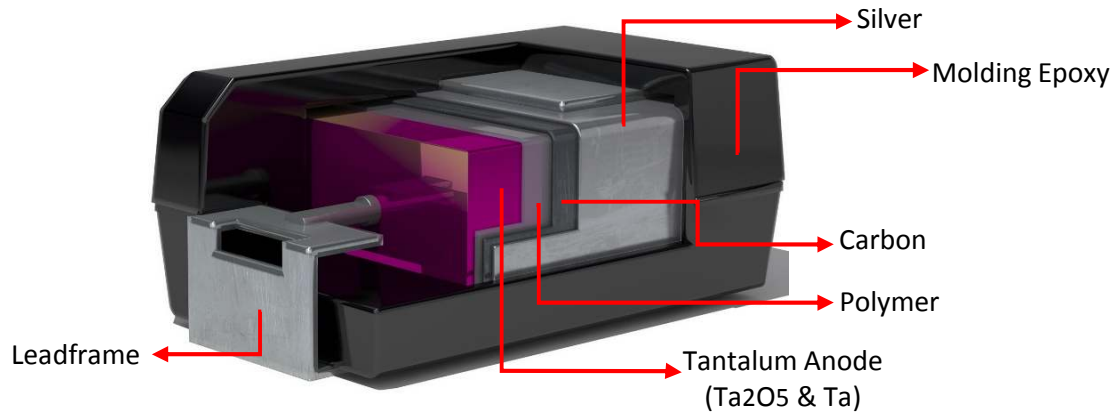


Series				T51X	
Case code				E (7360-38)	X (7343-43)
Homogeneous Level	Material	Substance	CAS No.	weight [mg]	weight [mg]
Anode	Tantalum	Ta	7440-25-7	67.66	67.66
	Manganese	MnO2	1313-13-9	39.21	39.21
	Carbon	C	7440-44-0	0.22	0.20
	Silver	Ag	7440-22-4	7.05	7.05
	Miscellaneous		-	0.29	0.21
Homogeneous Level Weight				114.43	114.33
Leadframe	Base metal	Cu	7440-50-8	19.32	19.32
		Zn	7440-66-6	5.13	5.12
		Miscellaneous	-	0.31	0.28
	Under layer	Ni	7440-02-0	5.74	5.74
	Finish plating	Sn	7440-31-5	3.01	3.01
	Conductive Adhesive*	Ag	7440-22-4	12.05	3.14
		C	7440-44-0	2.97	0.77
Homogeneous Level Weight				48.53	37.38
Molding Epoxy	Molding Epoxy	SiO ₂	7631-86-9	256.48	211.35
		Carbon	7440-44-0	67.56	55.67
		Iron	7439-89-6	2.53	2.09
		Miscellaneous	-	11.21	9.23
Homogeneous Level Weight				337.78	278.34
Total Weight				500.74	430.05

* This was tested as part of the Leadframe Finish Plating.

Material Declaration

Tantalum Polymer Surface Mount Capacitor(T52X series)



Environmental Compliance	
Pb Free	YES
RoHS Compliant	YES
Halogen Free	YES

Homogeneous Level	Construction Element	Substance	Weight	Common Name	CAS #	SGS Report No.
Anode	Tantalum Anode	Tantalum	See Annex 8	Ta	7440-25-7	CE/2016/83943
		Tantalum Pentoxide		Ta ₂ O ₅	1314-61-0	
	Polymer	Polymer				CE/2016/83944
	Carbon	Carbon		C	7440-44-0	CE/2016/83947
	Silver	Silver		Ag	7440-22-4	CE/2016/83950
Leadframe	Leadframe	Alloy		Cu	7440-50-8	CE/2016/83954
				Fe	7439-89-6	
				Zn	7440-66-6	
				Sn	7440-31-5	
				Ag	7440-22-4	
Molding Epoxy	Molding Epoxy	Epoxy				CE/2016/83958

Annex 8

Material Declaration

Tantalum Polymer Surface Mount Capacitor(T52X series)

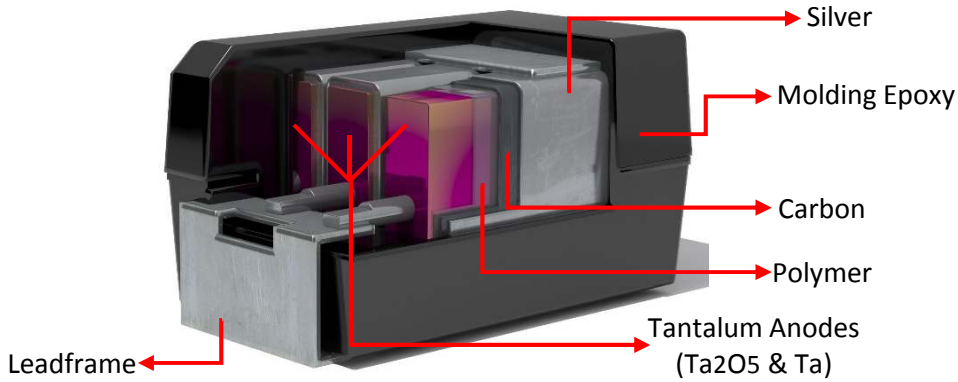


Series				T52x								
Case code				A (3216-18)	B (3216-21)	C (6032-25)	D (7343-31)	U (6032-15)	V (7343-19)	W (7343-15)	X (7343-43)	Y (7343-40)
Homogeneous Level	Material	Substance	CAS No.	weight [mg]	weight [mg]	weight [mg]	weight [mg]	weight [mg]	weight [mg]	weight [mg]	Weight [mg]	Weight [mg]
Anode	Tantalum	Ta ₂ O ₅	7440-25-7	9.50	25.99	39.99	129.75	28.19	69.27	61.48	203.01	153.44
	Polymer	-	-	0.47	0.92	1.46	3.08	1.24	2.43	2.46	3.82	3.08
	Carbon	C	7440-44-0	0.44	0.85	1.36	5.59	2.39	4.41	4.76	3.54	5.59
	Silver	Ag	7440-22-4	1.45	2.81	4.47	10.71	3.79	8.45	7.55	11.69	10.71
	Fluorine	F	7782-41-4	0.61	1.20	1.90	0.00	0.38	0.00	0.75	4.99	0.00
	Miscellaneous	-	-	0.01	0.01	0.02	0.06	0.01	0.04	0.03	0.09	0.06
Homogenous Level Weight				12.48	31.78	49.20	149.19	36.00	84.60	77.03	227.14	172.88
Lead frame	Base metal	Cu	7440-50-8	11.92	11.92	11.92	29.34	11.92	29.34	29.34	29.34	29.34
		Zn	7440-66-6	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.05	0.05
		Fe	7439-89-6	0.29	0.29	0.29	0.71	0.29	0.71	0.71	0.71	0.71
		Miscellaneous	-	0.03	0.03	0.03	0.06	0.03	0.06	0.06	0.06	0.06
	Under layer	Cu	7440-50-8	0.12	0.12	0.12	0.30	0.12	0.30	0.30	0.30	0.30
	Finish plating	Sn	7440-31-5	1.23	1.23	1.23	3.01	1.23	3.01	3.01	3.01	3.01
	Conductive Adhesive*	Ag	7440-22-4	4.90	4.90	4.90	12.05	4.90	12.05	12.05	12.05	12.05
		C	7440-44-0	1.21	1.21	1.21	2.97	1.21	2.97	2.97	2.97	2.97
Homogenous Level Weight				19.72	19.72	19.72	48.53	19.72	48.53	48.53	48.53	48.53
Molding Epoxy	Molding Epoxy	SiO ₂	7631-86-9	15.97	33.73	89.68	156.45	47.98	96.06	75.81	216.63	202.49
		C	7440-44-0	2.22	4.69	12.47	21.75	6.67	13.35	10.54	30.11	28.15
		Magnesium	7439-95-4	1.86	3.92	10.42	18.17	5.57	11.16	8.80	25.16	23.52
		Miscellaneous	-	0.47	1.00	2.65	4.62	1.42	2.84	2.24	6.40	5.98
Homogenous Level Weight				20.52	43.34	115.22	200.99	61.64	123.41	97.39	278.30	260.14
Total				52.72	94.84	184.14	398.71	117.36	256.54	222.95	553.97	481.55

* This was tested as part of the Leadframe Finish Plating.

Material Declaration

Tantalum Polymer Surface Mount Capacitor(T53X series)



Environmental Compliance	
Pb Free	YES
RoHS Compliant	YES
Halogen Free	YES

Homogeneous Level	Construction Element	Substance	Weight	Common Name	CAS #	SGS Report No.
Anode	Tantalum Anode	Tantalum	See Annex 9	Ta	7440-25-7	CE/2016/83943
		Tantalum Pentoxide		Ta2O5	1314-61-0	
	Polymer	Polymer				CE/2016/83946
	Carbon	Carbon		C	7440-44-0	CE/2016/83949
	Silver	Silver		Ag	7440-22-4	CE/2016/83952
Leadframe	Leadframe	Alloy		Cu	7440-50-8	CE/2016/83953
				Fe	7439-89-6	
				Zn	7440-66-6	
				Pd	7440-05-3	
				Sn	7440-31-5	
			Ag	7440-22-4		
Molding Epoxy	Molding Epoxy	Epoxy				CE/2016/83958

<http://www.kemet.com/Green-Product-Roadmap>

Annex 9

Material Declaration

Tantalum Polymer Surface Mount Capacitor (T53X series)



Series				T53X		
Case code				D (7343-31)	X (7343-43)	Y (7343-40)
Homogeneous Level	Material	Substance	CAS No.	Weight [mg]	Weight [mg]	Weight [mg]
Anode	Tantalum	Ta ₂ O ₅	7440-25-7	59.28	78.77	66.87
	Polymer	-	-	1.77	2.41	2.41
	Carbon	C	7440-44-0	1.64	2.23	2.23
	Silver	Ag	7440-22-4	5.41	7.37	7.37
	Fluorine	F	7782-41-4	2.30	3.15	3.15
	Miscellaneous			-	0.03	0.03
Homogenous Level Weight				70.43	93.96	82.06
Leadframe	Base Metal	Cu	7440-50-8	29.34	29.34	29.34
		Fe	7439-89-6	0.71	0.71	0.71
		Zn	7440-66-6	0.05	0.05	0.05
		Miscellaneous	-	0.04	0.06	0.06
	Under layer	Pd	7440-05-3	0.30	0.30	0.30
	Finish plating	Sn	7440-31-5	3.02	3.01	3.01
	Conductive Adhesive*	Ag	7440-22-4	1.66	3.14	3.14
		C	7440-44-0	0.41	0.77	0.77
Homogenous Level Weight				35.53	37.38	37.38
Molding Epoxy	Molding Epoxy	SiO ₂	7631-86-9	156.88	216.66	201.31
		C	7440-44-0	21.81	30.12	27.98
		Magnesium	7439-95-4	18.22	25.16	23.38
		Miscellaneous	-	4.64	6.40	5.95
Homogenous Level Weight				201.55	278.34	258.62
Total				307.51	409.68	378.06

* This was tested as part of the Leadframe Finish Plating.