



# CZECH REPUBLIC S.R.O.

A KYOCERA GROUP COMPANY

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Quality Engineer  
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## TAJ, TPS

Date: March 2006

		Case size		A		B		C		D		E		V		R		S		T		W		X		Y		P		Q		
MATERIALS	CONSTITUENT	PURPOSE	CAS	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	mg	%	
	Capacitor (mg)			31.4	100	71.9	100	194.3	100	372.5	100	531.4	100	680.660	100	10	100	18.67	100	35.02	100	96.82	100	158.3	100	236.8	100	15.13	100	15.13	100	
	anode body			12.863	40.97%	35.512	49.39%	109.738	56.48%	224.724	60.33%	300.865	56.62%	359.177	52.77%	4.338	43.38%	5.314	28.46%	11.880	33.92%	43.959	45.50%	77.198	48.77%	112.528	47.52%	5.610	37.06%	2.962	32.91%	
ANODE BODY	tantalum	Anode	7440-25-7	10.100	32.17%	29.000	40.33%	89.700	46.17%	185.600	49.83%	249.500	46.95%	297.600	43.72%	3.200	32.00%	3.700	19.82%	9.100	25.99%	34.800	36.02%	63.200	39.92%	92.800	39.19%	4.300	28.42%	2.000	22.22%	
	tantalum wire	Internal connection	7440-25-7	0.800	2.55%	0.890	1.24%	2.650	1.36%	3.170	0.85%	3.040	0.57%	3.940	0.58%	0.510	5.10%	0.890	4.77%	1.010	2.88%	2.400	2.48%	1.740	1.10%	1.740	0.73%	0.470	3.11%	0.570	6.33%	
	manganese(II) oxide	Cathode	1313-13-9	1.909	6.08%	5.481	7.62%	16.953	8.73%	35.078	9.42%	47.156	8.87%	56.246	8.26%	0.605	6.05%	0.699	3.75%	1.720	4.91%	6.577	6.81%	11.945	7.55%	17.539	7.41%	0.813	5.37%	0.378	4.20%	
	graphite	Barrier	7782-42-5	0.044	0.14%	0.128	0.18%	0.395	0.20%	0.817	0.22%	1.098	0.21%	1.309	0.19%	0.014	0.14%	0.016	0.09%	0.040	0.11%	0.153	0.16%	0.278	0.18%	0.408	0.17%	0.019	0.13%	0.009	0.10%	
	polydimethylsiloxane	Moisture barrier	63148-62-9	0.002	0.01%	0.006	0.01%	0.018	0.01%	0.037	0.01%	0.050	0.01%	0.060	0.01%	0.001	0.01%	0.001	0.00%	0.002	0.01%	0.007	0.01%	0.013	0.01%	0.019	0.01%	0.001	0.01%	0.000	0.00%	
SILVER LAYER	green teflon	Wire protection	9002-84-0	0.008	0.03%	0.008	0.01%	0.022	0.01%	0.022	0.01%	0.022	0.00%	0.022	0.00%	0.008	0.08%	0.008	0.04%	0.008	0.02%	0.022	0.02%	0.022	0.01%	0.022	0.01%	0.008	0.05%	0.004	0.05%	
	silver layer	Internal connection		0.600	1.91%	1.200	1.67%	2.500	1.29%	5.000	1.34%	7.000	1.32%	8.500	1.25%	0.500	5.00%	0.550	2.95%	1.000	2.86%	2.000	2.07%	3.500	2.21%	4.000	1.69%	0.500	3.30%	0.900	10.00%	
	silver particles	Internal connection	7440-22-4	0.569	1.81%	1.138	1.58%	2.370	1.22%	4.740	1.27%	6.636	1.25%	8.058	1.18%	0.474	4.74%	0.521	2.79%	0.948	2.71%	1.896	1.96%	3.318	2.10%	3.792	1.60%	0.474	3.19%	0.853	9.48%	
SILVER PASTE	bisphenol A-(epichlorohydrine) resin		25068-38-6	0.031	0.10%	0.062	0.09%	0.130	0.07%	0.260	0.07%	0.364	0.07%	0.442	0.06%	0.026	0.26%	0.029	0.15%	0.052	0.15%	0.104	0.11%	0.182	0.11%	0.208	0.09%	0.026	0.17%	0.047	0.52%	
	silver paste	Internal connection		0.105	0.33%	0.188	0.26%	0.730	0.38%	1.490	0.40%	0.718	0.14%	1.104	0.16%	0.073	0.73%	0.105	0.56%	0.070	0.20%	0.271	0.28%	0.380	0.24%	0.421	0.18%	0.082	0.54%	0.098	1.09%	
MOULDING MASS	silver particles		7440-22-4	0.090	0.29%	0.162	0.23%	0.629	0.32%	1.284	0.34%	0.619	0.12%	0.951	0.14%	0.063	0.63%	0.090	0.48%	0.060	0.17%	0.233	0.24%	0.327	0.21%	0.363	0.15%	0.071	0.47%	0.084	0.94%	
	epoxy resin, Bis-F		68610-73-1	0.015	0.05%	0.026	0.04%	0.101	0.05%	0.206	0.06%	0.099	0.02%	0.153	0.02%	0.010	0.10%	0.015	0.08%	0.010	0.03%	0.038	0.04%	0.053	0.03%	0.058	0.02%	0.011	0.08%	0.014	0.15%	
TERMINATION-NILO	moulding mass	Case		12.892	41.06%	24.430	33.98%	61.412	31.61%	111.156	29.84%	186.470	35.09%	266.279	39.12%	3.401	34.01%	8.601	46.07%	14.302	40.84%	37.746	39.07%	61.875	39.09%	104.452	44.11%	5.838	38.58%	2.481	27.57%	
	Epoxy resin	Termination	14808-60-7	12.8916	41.06%	24.430	33.98%	61.412	31.61%	111.156	29.84%	186.470	35.09%	266.279	39.12%	3.401	34.01%	8.601	46.07%	14.302	40.84%	37.746	39.07%	61.875	39.09%	104.452	44.11%	5.838	38.58%	2.481	27.57%	
TERMINATION-CU	Base material	Termination		4.700	14.97%	10.050	13.98%	19.240	9.90%	29.110	7.81%					1.558	15.58%	3.899	20.88%	7.388	21.10%							2.948	19.48%	2.435	27.06%	
	nickel		7440-02-0	1.974	6.29%	4.221	5.87%	8.081	4.16%	12.226	3.28%			0.654	6.54%	1.638	8.77%	3.103	8.86%									1.238	8.18%	1.023	11.36%	
	iron		7439-89-6	2.726	8.68%	5.829	8.11%	11.159	5.74%	16.884	4.53%			0.904	9.04%	2.251	12.11%	4.295	12.24%									1.710	11.30%	1.412	15.69%	
	Plating	Termination finish		0.240	0.76%	0.520	0.72%	0.680	0.35%	1.020	0.27%			0.130	1.30%	0.201	1.08%	0.380	1.09%									0.152	1.00%	0.124	1.38%	
	tin		7440-31-5	0.230	0.73%	0.498	0.69%	0.652	0.34%	0.977	0.26%			0.125	1.25%	0.193	1.03%	0.365	1.04%									0.146	0.96%	0.119	1.32%	
TERMINATION-CU	nickel	Barrier	7440-02-0	0.005	0.02%	0.011	0.02%	0.014	0.01%	0.021	0.01%			0.003	0.03%	0.004	0.02%	0.008	0.02%									0.003	0.02%	0.003	0.03%	
	silver		7440-22-4	0.005	0.02%	0.011	0.02%	0.014	0.01%	0.021	0.01%			0.003	0.03%	0.004	0.02%	0.008	0.02%									0.003	0.02%	0.003	0.03%	
	Base material	Termination				19.240	9.90%	29.110	7.81%	33.889	6.38%	42.520	6.25%									11.789	12.20%	14.335	9.06%	14.358	6.06%					
	copper		7440-50-8			18.748	9.648%	28.268	7.611%	33.025	6.169%	41.436	6.091%										11.762	12.172%	14.302	9.039%	14.325	6.046%				
	tin		7440-31-5			0.000	0.000%	0.000	0.000%	0.000	0.000%	0.000	0.000%										0.007	0.007%	0.009	0.005%	0.009	0.004%				
	silver particles		7440-22-4			0.000	0.000%	0.000	0.000%	0.000	0.000%	0.000	0.000%										0.001	0.001%	0.001	0.001%	0.001	0.001%				
	chromium		7440-47-3			0.000	0.000%	0.000	0.000%	0.000	0.000%	0.000	0.000%										0.006	0.006%	0.007	0.005%	0.007	0.003%				
	Zinc		7440-86-6			0.023	0.012%	0.135	0.009%	0.041	0.008%	0.051	0.008%										0.000	0.000%	0.000	0.000%	0.000	0.000%				
	Phosphorus		7723-14-0			0.006	0.003%	0.009	0.002%	0.010	0.004%	0.013	0.002%										0.000	0.000%	0.000	0.000%	0.000	0.000%				
	Silicon		7440-21-3			0.000	0.000%	0.000	0.000%	0.000	0.000%	0.000	0.000%										0.004	0.004%	0.004	0.003%	0.004	0.002%				
Iron		7439-89-6			0.462	0.238%	0.699	0.187%	0.813	0.199%	1.020	0.150%										0.009	0.010%	0.012	0.007%	0.012	0.005%					
Plating	Termination finish			0.680	0.35%	1.020	0.27%	2.458	0.46%	3.080	0.45%											0.855	0.88%	1.012	0.64%	1.041	0.44%					
tin		7440-31-5			0.652	0.34%	0.977	0.26%	2.356	0.44%	2.952	0.43%										0.819	0.85%	0.970	0.61%	0.998	0.42%					
nickel	Barrier	7440-02-0			0.014	0.01%	0.021	0.01%	0.051	0.01%	0.064	0.01%										0.018	0.02%	0.021	0.01%	0.022	0.01%					
silver	Barrier	7440-22-4			0.014	0.01%	0.021	0.01%	0.051	0.01%	0.064	0.01%										0.018	0.02%	0.021	0.01%	0.022	0.01%					