

## CERAMIC CAPACITORS

<b>Package family</b>	Ceramic Capacitor MLCC	Part Numbers: BCcomponents: SMD NP0, X7R, Y5V EPCOS: B37XXX....
<b>Date</b>	1.08.2003	Murata : GRM... Panasonic: ECJ***** Taiyo Yuden: *MK063, *MK105, *MK107, *MK212 *MK316, *MK325, *MK432, *MK550
<b>Version</b>	<b>02</b>	

Composition part	Material group	Materials	CAS if applicable	min	typical mass [wt-%]	max	Sum [%]	Traces
Active Part	Metals	Ag-Pd or Ni electrode		1	4	8	76	
	Ceramics	- BaTiO3 - Lead Compounds		60 0	72,0 0	95 10		
Termination	Metals	- Cu(75-84)Ni(8-19)Sn(8-15) - Ag(75-84)Ni(8-19)Sn(8-15) - Ni(85)Sn(15) electrode		2	24	28	24	
	Metals	(Pb solder)		0	0	3		
Sum in total:							100	

Case sizes and weight range:				
0201	0,6 x 0,3 x 0,3mm	0,00017..0,00029		g
0402	1,0 x 0,5 x 0,5mm	0,0014		g
0603	1,6 x 0,8 x 0,8mm	0,006		g
0805	2,0 x 1,25 x 1,3mm	0,012..0,019		g
1206	3,2 x 1,6 x 1,6mm	0,027..0,050		g
1210	3,2 x 3,2 x 1,6mm	0,05..0,12		g
1812	4,5 x 3,2 x 2,5mm	0,09..0,22		g
2220	5,7 x 5,0 x 2,5mm	0,21..0,45		g

Not part of package family	Murata :	GRM... high voltage capacitors (UR > 200 V)
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Company	BCcomponents	Important remarks:
	EPCOS AG	1) Traces are product parts, substances etc. that are below a percentage of 0.1 % by weight. Higher limits are accepted if the substance or material is legally regulated (see note no. 2). 2) A list of the (legal) "... restrictions on substances ..." or materials is available at internet address: <a href="http://www.eicta.org/Content/Default.asp?PageID=211">http://www.eicta.org/Content/Default.asp?PageID=211</a> . 3) Substances, materials etc. with possible harmful effects on human beings and the environment are listed. 4) There are no risks for human beings and to the environment if products are properly used as designated. This shall not apply to risks caused during procedures for disposal etc. 5) All statements herein are based on our present knowledge. If our products are used properly, there are no risks to human beings and/or the environment.
	Murata	
	Panasonic	
	Taiyo Yuden Co.,Ltd.	