

Automotive MLCC

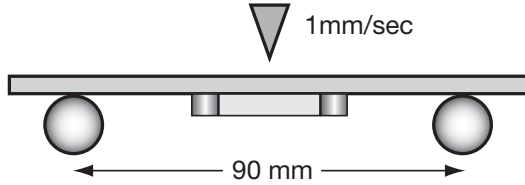
NP0/X7R Dielectric



FLEXITERM® FEATURES

a) Bend Test

The capacitor is soldered to the PC Board as shown:



b) Temperature Cycle testing

FLEXITERM® has the ability to withstand at least 1000 cycles between -55°C and +125°C

Typical bend test results are shown below:

Style	Conventional Term	Soft Term
0603	>2mm	>5
0805	>2mm	>5
1206	>2mm	>5

Automotive MLCC - NP0

Capacitance Range



	0603			0805			1206					1210				1812	
	25V	50V	100V	25V	50V	100V	25V	50V	100V	200V	500V	25V	50V	100V	200V	50V	100V
100 10pF	G	G	G	J	J	J	J	J	J	J	J						
120 12	G	G	G	J	J	J	J	J	J	J	J						
150 15	G	G	G	J	J	J	J	J	J	J	J						
180 18	G	G	G	J	J	J	J	J	J	J	J						
220 22	G	G	G	J	J	J	J	J	J	J	J						
270 27	G	G	G	J	J	J	J	J	J	J	J						
330 33	G	G	G	J	J	J	J	J	J	J	J						
390 39	G	G	G	J	J	J	J	J	J	J	J						
470 47	G	G	G	J	J	J	J	J	J	J	J						
510 51	G	G	G	J	J	J	J	J	J	J	J						
560 56	G	G	G	J	J	J	J	J	J	J	J						
680 68	G	G	G	J	J	J	J	J	J	J	J						
820 82	G	G	G	J	J	J	J	J	J	J	J						
101 100	G	G	G	J	J	J	J	J	J	J	J						
121 120	G	G	G	J	J	J	J	J	J	J	J						
151 150	G	G	G	J	J	J	J	J	J	J	J						
181 180	G	G	G	J	J	J	J	J	J	J	J						
221 220	G	G	G	J	J	J	J	J	J	J	J						
271 270	G	G	G	J	J	J	J	J	J	J	J						
331 330	G	G	G	J	J	J	J	J	J	J	J						
391 390	G	G		J	J	J	J	J	J	J	J						
471 470	G	G		J	J	J	J	J	J	J	J						
561 560				J	J	J	J	J	J	J	J						
681 680				J	J	J	J	J	J	J	J						
821 820				J	J	J	J	J	J	J	J						
102 1000				J	J	J	J	J	J	J	J	J	J	J	J		
122 1200							J	J	J	J	J	J	J	M	M		
152 1500							J	M	M	M	M	J	J	M	M		
182 1800							J	M	M	M	M	J	J	M	M		
222 2200							J	M	M	M	M	J	J	M	M		
272 2700							J	M				J	J	M			
332 3300							J	M				J	J	P		K	K
392 3900												J	J	P		K	K
472 4700												J	J	P		K	K
103 10nF																	
	25V	50V	100V	25V	50V	100V	25V	50V	100V	200V	500V	25V	50V	100V	200V	50V	100V
	0603			0805			1206					1210				1812	

Letter	A	C	E	G	J	K	M	N	P	Q	X	Y	Z
Max. Thickness	0.33 (0.013)	0.56 (0.022)	0.71 (0.028)	0.90 (0.035)	0.94 (0.037)	1.02 (0.040)	1.27 (0.050)	1.40 (0.055)	1.52 (0.060)	1.78 (0.070)	2.29 (0.090)	2.54 (0.100)	2.79 (0.110)
	PAPER					EMBOSSED							

 = Under Development

Automotive MLCC - X7R

Capacitance Range



		0402			0603					0805					1206						1210				1812			2220	
		16V	25V	50V	16V	25V	50V	100V	200V	16V	25V	50V	100V	200V	16V	25V	50V	100V	200V	500V	16V	25V	50V	100V	50V	100V	25V	50V	
221	Cap .22																												
271	(nF) .27																												
331	.33																												
391	.39																												
471	.47																												
561	.56																												
681	.68																												
821	.82																												
102	1				G	G	G	G	G	J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
182	1.8				G	G	G	G		J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
222	2.2				G	G	G	G		J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
332	3.3				G	G	G	G		J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
472	4.7				G	G	G	G		J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
103	10				G	G	G	G		J	J	J	J	J	J	J	J	J	J	J	K	K	K	K	K	K	K	K	
123	12				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
153	15				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
183	18				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
223	22				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
273	27				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
333	33				G	G	G			J	J	J	M		J	J	J	J	J		K	K	K	K	K	K	K		
473	47				G	G	G			J	J	J	M		J	J	J	M	J		K	K	K	K	K	K	K		
563	56				G	G	G			J	J	J	M		J	J	J	M	J		K	K	K	M	K	K	K		
683	68				G	G	G			J	J	J	M		J	J	J	M	J		K	K	K	M	K	K	K		
823	82				G	G	G			J	J	J	M		J	J	J	M	J		K	K	K	M	K	K	K		
104	100				G	G	G			J	J	M	M		J	J	J	M	J		K	K	K	M	K	K	K		
124	120									J	J	M			J	J	M	M			K	K	K	P	K	K	K		
154	150									M	N	M			J	J	M	M			K	K	K	P	K	K	K		
224	220									M	N	M			J	M	M	Q			M	M	M	P	M	M	M		
334	330									N	N	M			J	M	P	Q			P	P	P	Q	X	X	X		
474	470									N	N	M			M	M	P	Q			P	P	P	Q	X	X	X		
684	680									N	N				M	Q	Q	Q			P	P	Q	X	X	X	X		
105	Cap 1									N	N				M	Q	Q	Q			P	Q	Q	X	X	X	X		
155	(μF) 1.5														Q	Q					P	Q	Z	Z	X	X	X		
225	2.2														Q	Q					X	Z	Z	Z	Z	Z	Z		
335	3.3																				X	Z	Z		Z				
475	4.7																				X	Z	Z		Z				
106	10																											Z	
226	22																											Z	
		16V	25V	50V	16V	25V	50V	100V	200V	16V	25V	50V	100V	200V	16V	25V	50V	100V	200V	500V	16V	25V	50V	100V	50V	100V	25V	50V	
		0402			0603					0805					1206						1210				1812			2220	

 = Under Development

Letter	A	C	E	G	J	K	M	N	P	Q	X	Y	Z
Max. Thickness	0.33 (0.013)	0.56 (0.022)	0.71 (0.028)	0.90 (0.035)	0.94 (0.037)	1.02 (0.040)	1.27 (0.050)	1.40 (0.055)	1.52 (0.060)	1.78 (0.070)	2.29 (0.090)	2.54 (0.100)	2.79 (0.110)
PAPER						EMBOSS							


Automotive MLCC - X8R



Capacitance Range

SIZE		0603		0805		1206	
	WVDC	25V	50V	25V	50V	25V	50V
271	Cap 270	G	G				
331	(pF) 330	G	G	J	J		
471	470	G	G	J	J		
681	680	G	G	J	J		
102	1000	G	G	J	J	J	J
152	1500	G	G	J	J	J	J
182	1800	G	G	J	J	J	J
222	2200	G	G	J	J	J	J
272	2700	G	G	J	J	J	J
332	3300	G	G	J	J	J	J
392	3900	G	G	J	J	J	J
472	4700	G	G	J	J	J	J
562	5600	G	G	J	J	J	J
682	6800	G	G	J	J	J	J
822	8200	G	G	J	J	J	J
103	Cap 0.01	G	G	J	J	J	J
123	(μF) 0.012	G	G	J	J	J	J
153	0.015	G	G	J	J	J	J
183	0.018	G	G	J	J	J	J
223	0.022	G	G	J	J	J	J
273	0.027	G	G	J	J	J	J
333	0.033	G	G	J	J	J	J
393	0.039	G	G	J	J	J	J
473	0.047	G	G	J	J	J	J
563	0.056	G		N	N	M	M
683	0.068	G		N	N	M	M
823	0.082			N	N	M	M
104	0.1			N	N	M	M
124	0.12			N	N	M	M
154	0.15			N	N	M	M
184	0.18			N		M	M
224	0.22			N		M	M
274	0.27					M	M
334	0.33					M	M
394	0.39					M	
474	0.47					M	
684	0.68						
824	0.82						
105	1						
SIZE		0603		0805		1206	
	WVDC	25V	50V	25V	50V	25V	50V

Letter	A	C	E	G	J	K	M	N	P	Q	X	Y	Z
Max. Thickness	0.33 (0.013)	0.56 (0.022)	0.71 (0.028)	0.90 (0.035)	0.94 (0.037)	1.02 (0.040)	1.27 (0.050)	1.40 (0.055)	1.52 (0.060)	1.78 (0.070)	2.29 (0.090)	2.54 (0.100)	2.79 (0.110)
	PAPER					EMBOSSED							

 = AEC-Q200 Qualified