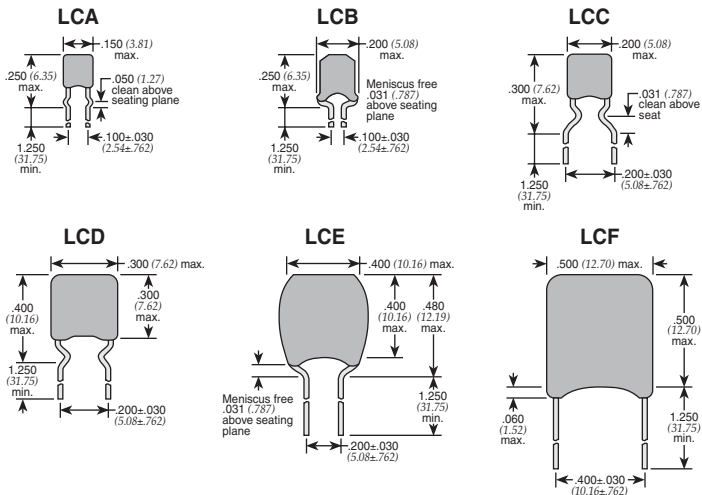


features

- Conformal coated radial MLC's
- NPO, X7R, Z5U temperature coefficients
- Epoxy construction
- Wide range of voltage offerings
- Marking: Orange-brown body color with black marking
- Products with lead-free terminations meet RoHS requirements

dimensions and construction



Type	Dimensions inches (mm)		
	Lead Diameter	Thickness (max.)	Case Height (max.)
LCA	.020 (.508)	.100 (2.54)	.150 (3.81)
LCB		.125 (3.18)	.200 (5.08)
LCC			
LCD			
LCE		.150 (3.81)	.200 (5.08)
LCF		.200 (5.08)	

ordering information

New Part #	LC	A	NPO	H	T	R	102	M
Type	Style	Dielectric	Voltage	Termination Material	Packaging	Capacitance	Tolerance	
	A B C D E F	NPO X7R Z5U	H: 50V I: 100V J: 200V	T: Sn	No Designation: Bulk R: Leaded Reel	2 significant figures + 1 multiplier "R" indicates decimal on value <10pF	D: ±0.5pF J: ±5% K: ±10% M: ±20% Z: +80, -20%	

For further information on packaging, please refer to Appendix C.

applications and ratings

Dielectric	Capacitance Range	Voltage Ratings*	Tolerance**	Operating Temperature Range
NPO	100pF - 100,000pF	50V, 100V, 200V	0.5pF (<10pF only) ±2%, ±5%, ±10%	-55°C to +125°C
X7R	470pF - 4.7µF	50V	±5%, ±10%, ±20%	
Z5U	10,000pF - 4.7µF	100V	±20%, +80,-20%	+10°C to +85°C

* Reference capacitance range charts for available voltage ratings. ** Special tight tolerances available, contact factory.

NPO dielectric

Size			LCA			LCB			LCC			LCD		LCE		LCF
Capacitance values (pF)	Code	WVDC	50 (H)	100 (I)	200 (J)	50 (H)	100 (I)	200 (J)	50 (H)	100 (I)	200 (J)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)
1.0- 9.9	1R0 - 9R9PF*															
10	100PF															
12	120PF															
15	150PF															
18	180PF															
22	220PF															
27	270PF															
33	330PF															
39	390PF															
47	470PF															
56	560PF															
68	680PF															
82	820PF															
100	.0001 101PF															
120	.00012 121PF															
150	.00015 151PF															
180	.00018 181PF															
220	.00022 221PF															
270	.00027 271PF															
330	.00033 331PF															
390	.00039 391PF															
470	.00047 471PF															
560	.00056 561PF															
680	.00068 681PF															
820	.00082 821PF															
1000	.0010 102PF															
1200	.0012 122PF															
1500	.0015 152PF															
1800	.0018 182PF															
2200	.0022 222PF															
2700	.0027 272PF															
3300	.0033 332PF															
3900	.0039 392PF															
4700	.0047 472PF															
5600	.0056 562PF															
6800	.0068 682PF															
8200	.0082 822PF															
10000	.010 103PF															
12000	.012 123PF															
15000	.015 153PF															
18000	.018 183PF															
22000	.022 223PF															
27000	.027 273PF															
33000	.033 333PF															
39000	.039 393PF															
47000	.047 473PF															
56000	.056 563PF															
68000	.068 683PF															
82000	.082 823PF															
100000	.100 104PF															

IR and vapor phase solder only recommended * Only available D: +0.5pF

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

9/16/05

X7R dielectric

Size				LCA		LCB		LCC		LCD		LCE		LCF	
Capacitance values (pF)	μF	Code	WVDC	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)
				470	.00047	471PF									
560	.00056	561PF													
680	.00068	681PF													
820	.00082	821PF													
1000	.0010	102PF													
1200	.0012	122PF													
1500	.0015	152PF													
1800	.0018	182PF													
2200	.0022	222PF													
2700	.0027	272PF													
3300	.0033	332PF													
3900	.0039	392PF													
4700	.0047	472PF													
5600	.0056	562PF													
6800	.0068	682PF													
8200	.0082	822PF													
10000	.010	103PF													
12000	.012	123PF													
15000	.015	153PF													
18000	.018	183PF													
22000	.022	223PF													
27000	.027	273PF													
33000	.033	333PF													
39000	.039	393PF													
47000	.047	473PF													
56000	.056	563PF													
68000	.068	683PF													
82000	.082	823PF													
100000	.100	104PF													
120000	.120	124PF													
150000	.150	154PF													
180000	.180	184PF													
220000	.220	224PF													
270000	.270	274PF													
330000	.330	334PF													
390000	.390	394PF													
470000	.470	474PF													
560000	.560	564PF													
680000	.680	684PF													
1000000	1.0	105PF													
1500000	1.5	155PF													
2200000	2.2	225PF													
2700000	2.7	275PF													
3300000	3.3	335PF													
4700000	4.7	475PF													

IR and vapor phase solder only recommended

capacitors

Z5U dielectric

Size			LCA		LCB		LCC		LCD		LCE		LCF		
Capacitance values (pF)	μF	Code	WVDC	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)	50 (H)	100 (I)
10000	.010	103PF		■	■			■	■						
12000	.012	123PF													
15000	.015	153PF					■								
18000	.018	183PF		■			■	■							
22000	.022	223PF													
27000	.027	273PF													
33000	.033	333PF		■			■	■							
39000	.039	393PF													
47000	.047	473PF													
56000	.056	563PF													
68000	.068	683PF													
82000	.082	823PF				■		■	■						
100000	.100	104PF				■		■	■						
120000	.120	124PF													
150000	.150	154PF													
180000	.180	184PF				■		■	■						
220000	.220	224PF								■					
270000	.270	274PF									■				
330000	.330	334PF													
390000	.390	394PF													
470000	.470	474PF													
560000	.560	564PF								■					
680000	.680	684PF									■				
1000000	1.0	105PF												■	■
1200000	1.2	125PF								■				■	■
1500000	1.5	155PF													
1800000	1.8	185PF													
2200000	2.2	225PF								■				■	■
2700000	2.7	275PF													
3300000	3.3	335PF													
3900000	3.9	395PF													
4700000	4.7	475PF													

IR and vapor phase solder only recommended