

## Short guide to main applications

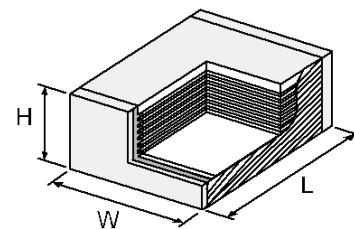
	Device	Application	Arcotronics SMD Film proposal	Main Competitors	SMD Film advantages
TELECOM	Mobile phone	A/D converter	LDB series	Ceramic NP0	- Low Lock-up time - Narrow tolerance - No cracking
		PLL filtering			
	Bluetooth @	PLL filtering	LDB series	Ceramic NP0	
	Modem	DMT modulation / demodulation	LDE / LDB series	Ceramic NP0	
	Base station	Filtering	LDE / LDB series	Ceramic X7R	- High stability vs. frequency and temperature - High reliability - No cracking
	Line Card	Input filtering	LDE series	Ceramic NP0	
Splitter	Filtering	LDE series	Ceramic X7R		
AUTOMOTIVE	Wiper	Noise suppression	LDE series	Ceramic X7R	- High stability vs. frequency and temperature - High reliability - Low ESR - No cracking
	Driver information & car entertainment	Filtering, timing, coupling and decoupling	LDE series	Ceramic X7R	
	Tire pressure monitoring system	Resonant circuit	LDE series	Ceramic X7R	
CONSUMER	DC/DC converter	Input / output filtering	LDE series	Ceramic X7R	- High reliability - Low ESR - No cracking
	LCD Monitor	Inverter unit	LDE series	Ceramic X7R	- High stability vs. frequency and temperature - High reliability - No cracking
	DVD player	Filtering	LDB series	Ceramic NP0	
	PDA	Inverter unit	LDB series	Ceramic NP0	
	Hi-Fi systems	Filtering	LDE / LDB series	Ceramic X7R	

### Description:

- Non-encapsulated construction
- Stacked technology
- Metallized PEN (PolyEthylene Naphtalate) in LDE series
- Metallized PPS (PolyPhenylene Sulfide) in LDB series
- RoHS 6 compliant (no hazardous materials)

### Features:

- Excellent stability vs. temperature, frequency and time
- Self-healing
- High reliability
- Low ESR (**E**quivalent **S**eries **R**esistance)
- Typical failure mode at the end of life: open circuit
- No piezoelectric effect
- No cracking



SMD Film Capacitors are complementary to MLCC for professional applications.

## Product coding

### LDE series - RoHS 6

The part number is composed of 15 digits:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L	D	E	-	-	-	-	-	-	-	A	-	-	-	0

Digit 1 to 3 Series code.

Digit 4 D.C. rated voltage: ( $V_R$ )  
 C = 50  $V_{DC}$     D = 63  $V_{DC}$     E = 100  $V_{DC}$   
 I = 250  $V_{DC}$     M = 400  $V_{DC}$     P = 630  $V_{DC}$   
 Q = 1000  $V_{DC}$  (new version)

Digit 5 Size code (special sizes available upon special request)

12.06	12.10	18.12	22.20	28.24	40.30	50.40	60.54
A	B	C	D	E	F	G	H

Digit 6 to 9 Capacitance value

Digits 7 - 8 - 9 indicate the first three numbers of the capacitance value, digit 6 indicates the number of zeros that must be added to obtain the rated capacitance in pF.

Digit 10 Capacitance tolerance  
 Standard: K =  $\pm 10\%$     M =  $\pm 20\%$   
 (J =  $\pm 5\%$  available upon request and review of project/application)

Digit 11 Dielectric code

A = PEN

Digit 12 Version

5 = standard    0 = miniature    A to Z = special

Digit 13 Packaging

N = taped    A to Z = special

Digit 14 Internal use

Digit 15 0 (used in LDE RoHS 6 series only)

### LDB series - RoHS 6

The part number is composed of 14 digits:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
L	D	B	-	-	-	-	-	-	-	C	-	-	-

Digit 1 to 3 Series code.

Digit 4 D.C. rated voltage: ( $V_R$ )  
 A = 16  $V_{DC}$   
 C = 50  $V_{DC}$

Digit 5 Size code

12.06	12.10	18.12
A	B	C

Digit 6 to 9 Capacitance value

Digits 7 - 8 - 9 indicate the first three numbers of the capacitance value, digit 6 indicates the number of zeros that must be added to obtain the rated capacitance in pF.

Digit 10 Capacitance tolerance

G =  $\pm 2\%$     J =  $\pm 5\%$

Digit 11 Dielectric code

C = PPS

Digit 12 Version

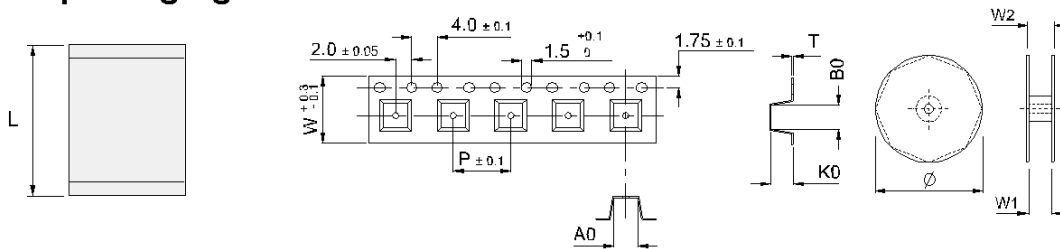
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Digit 13 Packaging

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Digit 14 Internal use

## Product packaging



SMD Film Capacitor (top view)

Tape

Reel

Size code	Carrier tape code	Carrier tape dimensions						Reel dimensions			Packaging quantities (pcs per reel)
		A0 [mm]	B0 [mm]	K0 [mm]	W [mm]	P [mm]	T [µm]	Ø [mm]	W1 [mm]	W2 [mm]	
12.06	-	2.00	3.80	1.30	8	4	250	180	8	12	3000
12.10	-	3.00	3.80	2.10	8	4	250	180	8	12	2250
18.12	a	3.80	5.30	2.00	12	8	300	330	12	16	4000
	b	3.90	5.20	2.60							3000
22.20	a	5.50	6.50	2.90	12	8	250	330	12	16	3000
	b			3.80							2250
	c			4.90							1750
28.24	a	6.60	7.90	3.80	16	8	300	330	16	20	2250
	b			4.60							1750
	c			5.50							1500
40.30	a	8.60	11.00	3.80	16	12	300	330	16	20	1500
	b			4.60							1250
	c			5.80							1000
50.40	a	10.90	13.50	3.80	24	12	250	330	24	28	1500
	b	10.90		4.70							1250
	c	11.00		5.90							1000
60.54	a	14.40	16.00	4.30	24	16	300	330	24	28	1000
	b			5.10			750				
	c			5.80			300				750

In accordance with IEC 60286-3

Materials:

- carrier tape: antistatic material
- cover tape: polyester + polythene
- reel: recyclable polystyrene

All parts in reels are packed in hermetically sealed Moisture Barrier Bag (MBB) Class 1.