

CLL SERIES | Ultra Low Inductance

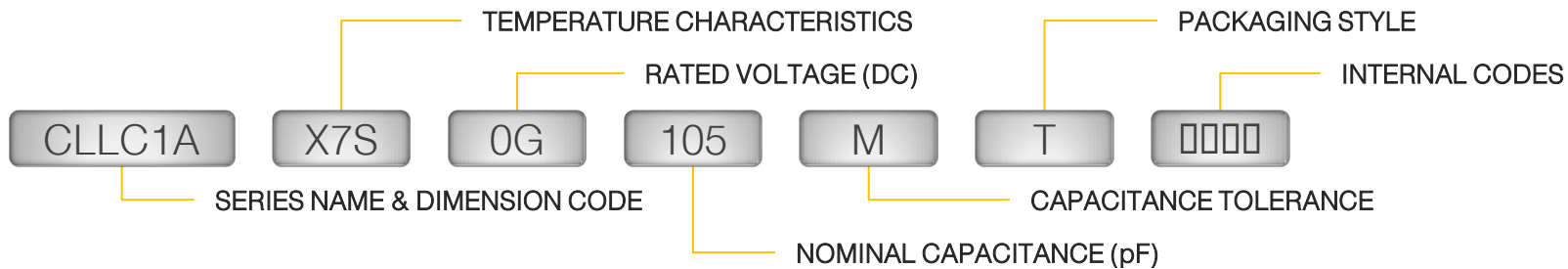


TDK's CLL multilayer ceramic capacitor series features ultra low inductance (less than 150 pH) and unique internal design. Ultra Low inductance are achieved with unique 8-terminal design. These terminals are connected in an alternating configuration which results in the cancelation of mutual inductance by alternating the flow of current so that the magnetic fields cancel each other out allowing for ultra low inductance along with reduced parasitic losses.

CLL Ultra Low Inductance series are available in two case sizes with operating temperature range of -55°C to $+125^{\circ}\text{C}$ and capacitance of up to $4.7\mu\text{F}$. With voltage rating of 4V to 10V DC, CLL series are suitable for high speed IC decoupling as well as CPU power line decoupling. These capacitors are also effective for input/output smoothing in DC to DC converter.

Case Code	L (mm)	W (mm)	T (mm)	B (mm)	P (mm)
CLLC1A (0603)	1.60	0.80	0.50	0.40	0.25
CLLE1A (0805)	2.00	1.25	0.50	0.50	0.25
	2.00	1.25	0.85	0.50	0.25

Part Number Description



Features:

- ❖ Unique internal structure that cancels magnetic fields to reduce inductance
- ❖ Compact and lightweight
- ❖ Contains no lead and supports lead-free soldering

Applications:

- ❖ Decoupling CPU power line
- ❖ High speed digital IC decoupling
- ❖ High impedance/high current circuits
- ❖ DC to DC converter input/output smoothing
- ❖ Power Supply

Unique Design of ULI Capacitor



➤ Ultra-low ESL is created by alternating the flow of current so the magnetic fields cancel out. Effective for miniaturization and achieving high capacitance.

CLL SERIES | Ultra Low Inductance / X7R, X7S

Capacitance (pF)	Cap Code	CLLC1A 0603/C1608		CLLE1A 0805/C2012		
		0J (6.3V)	0G (4V)	1A (10V)	0J (6.3V)	0G (04V)
100,000	104			■		
150,000	154			■		
220,000	224			■		
330,000	334			■		
470,000	474		■		■	
680,000	684		■		■	
1,000,000	105				■	■
1,500,000	155				■	■
2,200,000	225					■
4,700,000	475					■

■ X7R ■ X7S

Composition of Circuit Impedance & Target Application

