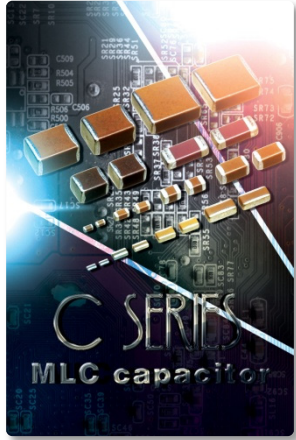


C SERIES | Conductive Epoxy

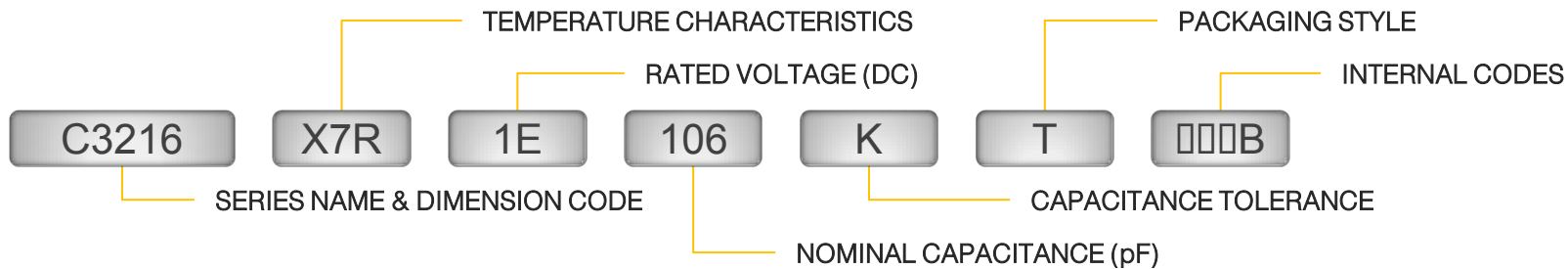


TDK's Conductive Epoxy Series is a conductive glue-mounted device rather than solder-mounted. In high-temperature environments, the connectivity reliability is focused on the solder fillet because there are thermal expansion coefficient differences between the substrate, MLCC, and solder fillet. A conductive glue-mounted device allows for more "flexibility" during periods of expansion and contraction because the thermal expansion differences have been reduced by using a non-solder attachment.

Conductive glue is a common method of mounting components in applications that demand reliability at high temperatures, particularly in automotive environments. It's also used in applications that cannot be subjected to the heat of the solder paste mounting process, such as LCD panels, organic EL and LED displays, and CCD devices, which are particularly sensitive to high temperatures.

| Case Code | L (mm) | W (mm) | T (mm) |
|------------|--------|--------|--------|
| C1005/0402 | 1.00 | 0.50 | 0.50 |
| C1608/0603 | 1.60 | 0.80 | 0.80 |
| C2012/0805 | 2.00 | 1.25 | 1.25 |
| C3216/1206 | 3.20 | 1.60 | 1.60 |
| C3225/1210 | 3.20 | 2.50 | 2.50 |

Part Number Description



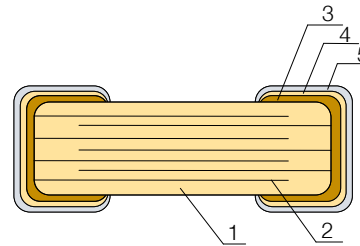
Features:

- ❖ AgPdCu termination for conductive glue mounting
- ❖ Reduce risk of silver migration
- ❖ Improved mechanical/thermal strength when use with conductive glue
- ❖ AEC Q-200 compliant
- ❖ RoHS, WEE, and REACH compliant

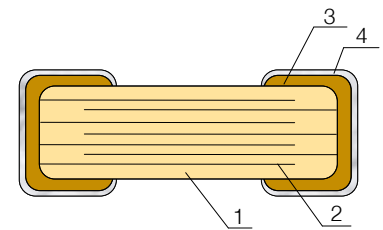
Applications:

- ❖ Transmission control
- ❖ Engine sensor module
- ❖ Automotive power train
- ❖ Anti-Lock Breaking System
- ❖ Application requiring conductive glue mounting method

Standard Termination



AgPdCu Termination



| No. | NAME | MATERIAL | |
|-----|--------------------|--------------------|--------------------|
| | | Class 1 | Class 2 |
| (1) | Ceramic Dielectric | CaZrO ₃ | BaTiO ₃ |
| (2) | Internal Electrode | Nickel (Ni) | |
| (3) | Termination | Copper (Cu) | |
| (4) | | Nickel (Ni) | |
| (5) | | Tin (Sn) | |

| No. | NAME | MATERIAL | |
|-----|--------------------|--------------------|--------------------|
| | | Class 1 | Class 2 |
| (1) | Ceramic Dielectric | CaZrO ₃ | BaTiO ₃ |
| (2) | Internal Electrode | Nickel (Ni) | |
| (3) | Termination | Copper (Cu) | |
| (4) | | AgPdCu | |

C SERIES | Conductive Epoxy / C0G, X7R, X8R

| Capacitance (pF) | Cap Code | C1005 0402 | | C1608 0603 | | | | C2012 0805 | | C3216 1206 | C3225 1210 |
|------------------|----------|------------|----------|------------|----------|-----|----------|------------|----------|------------|------------|
| | | 1H (50V) | 1E (25V) | 2A (100V) | 1H (50V) | | 1E (25V) | 1H (50V) | 1E (25V) | 1E (25V) | 1H (50V) |
| 10 | 100 | COG | | | | | | | | | |
| 100 | 101 | COG | | COG | | COG | | | | | |
| 220 | 221 | X8R | | COG | | | | | | | |
| 470 | 471 | X8R | | | | | | | | | |
| 1,000 | 102 | X8R | | COG | X8R | COG | X7R | X8R | | | |
| 2,200 | 222 | X8R | | | | | X7R | | | | |
| 4,700 | 472 | X8R | | | X8R | | X7R | | | | |
| 10,000 | 103 | | X8R | | X8R | | X7R | X8R | | | |
| 22,000 | 223 | | | | | | | | | | |
| 47,000 | 473 | | | | | | | | | | |
| 100,000 | 104 | | | | | | X8R | X8R | | | |
| 1,000,000 | 105 | | | | | | | | X7R | X8R | X7R |
| 10,000,000 | 106 | | | | | | | | X7R | X7R | |

■ COG
 ■ X7R
 ■ X8R