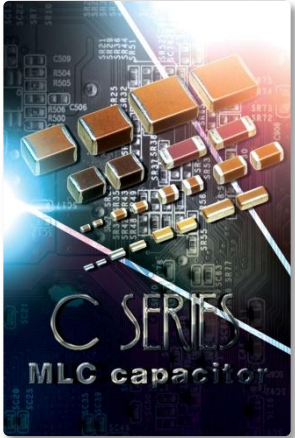


C SERIES | Mid Voltage Capacitor



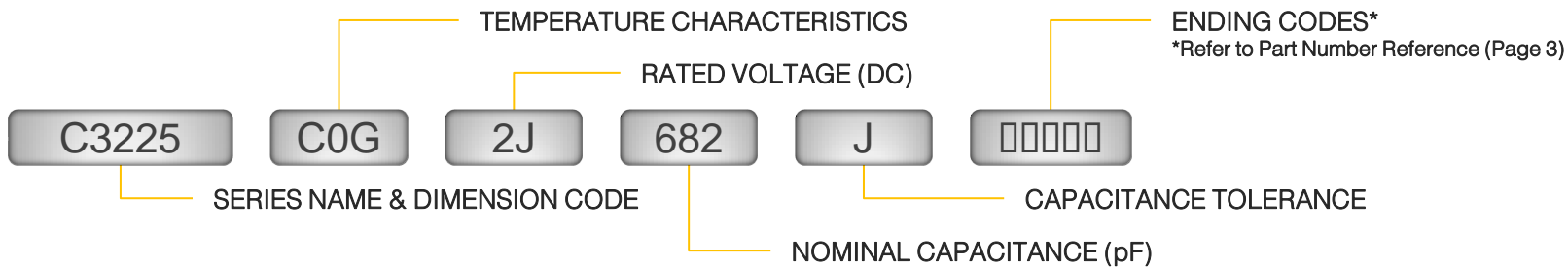
With a rated voltage ranging from 100V to 630V, TDK's mid voltage multilayer ceramic chip capacitors (MLCC) use ceramic dielectric thin-layer and advanced multi-layering technologies to improve capacitance to the industry's highest levels in the mid-voltage range.

These products feature Class I & Class II temperature characteristics (operating temperature range: -55°C and up to 125°C), making them ideal for use in electric flash circuits in digital camera, higher voltage switching power supply smoothing circuits needed for industrial equipment, power factor correction, various lighting application, and general circuits that require higher voltages than traditional sub 100V rated MLCC's.

| 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 | 2.30 |
| C4532/1810 | 4.50 | 3.20 | 3.20 |
| C5750/2220 | 5.70 | 5.00 | 2.50 |

L Body Length
 W Body Width
 T Body Height
 B Terminal Width

Part Number Description



Features:

- ❖ Advanced dielectric materials
- ❖ Wide capacitance range up to 22uF
- ❖ Higher voltage rating in smaller case size
- ❖ Voltage rating of 100V, 250V, 450V, and 630V
- ❖ High mechanical strength
- ❖ Excellent DC bias properties

Applications:

- ❖ Snubber in power supply
- ❖ Ringer cap in telephone set and modem
- ❖ Electric flash circuits in digital still camera
- ❖ Power factor correction
- ❖ Input/output filter in power supply
- ❖ Driver circuit in plasma display
- ❖ Noise bypass
- ❖ Lighting application

C SERIES | Mid Voltage / COG

| Capacitance (pF) | Cap Code | C1608 0603 | | C2012 0805 | | C3216 1206 | | | C3225 1210 | | | C4532 1812 | | |
|------------------|----------|------------|-----------|------------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|
| | | 2E (250V) | 2A (100V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) | 2J (630V) | 2E (250V) | 2A (100V) |
| 100 | 101 | COG | COG | COG | COG | COG | | | | | | | | |
| 120 | 121 | | | | | | | | | | | | | |
| 150 | 151 | | | | | | | | | | | | | |
| 180 | 181 | | | | | | | | | | | | | |
| 220 | 221 | | | | COG | | | | | | | | | |
| 270 | 271 | | | | | | | | | | | | | |
| 330 | 331 | | | | | | | | | | | | | |
| 390 | 391 | | | | | | | | | | | | | |
| 470 | 471 | | | | COG | | | | | | | | | |
| 560 | 561 | | | | | | | | | | | | | |
| 680 | 681 | COG | | | | | | | | | | | | |
| 820 | 821 | | | COG | | | | | | | | | | |
| 1,000 | 102 | | COG | COG | COG | COG | | | | | | | | |
| 1,200 | 122 | | | | | | | | | | | | | |
| 1,500 | 152 | | | | | | | | | | | | | |
| 1,800 | 182 | | | | | | | | | | | | | |
| 2,200 | 222 | | | | | | | | | | | | | |
| 2,700 | 272 | | | | | | | | | | | | | |
| 3,300 | 332 | | | | | | | | | | | | | |
| 3,900 | 392 | | | | | | | | | | | | | |
| 4,700 | 472 | | | | | | | | | | | | | |
| 5,600 | 562 | | | | | | | | | | | | | |
| 6,800 | 682 | | | | | | | | | | | | | |
| 8,200 | 822 | | | | | | | | | | | | | |
| 10,000 | 103 | | | | | | | | | | | | | |
| 15,000 | 153 | | | | | | | | | | | | | |
| 22,000 | 223 | | | | | | | | | | | | | |
| 33,000 | 333 | | | | | | | | | | | | | |
| 47,000 | 473 | | | | | | | | | | | | | |
| 68,000 | 683 | | | | | | | | | | | | | |
| 100,000 | 104 | | | | | | | | | | | | | COG |

 COG

C SERIES | Mid Voltage / X7R, X7S, X7T, X6S

| Capacitance (pF) | Cap Code | C1005 0402 | | C1608 0603 | | C2012 0805 | | | C3216 1206 | | | | |
|------------------|----------|------------|-----------|------------|-----------|------------|-----------|-----------|------------|-----------|--|-----|--|
| | | 2A (100V) | 2A (100V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | | | |
| 1,000 | 102 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 1,500 | 152 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 2,200 | 222 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 3,300 | 332 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 4,700 | 472 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 6,800 | 682 | X7S | X7R | | X7R | X7R | X7R | | | | | | |
| 10,000 | 103 | X7S | X7R | X7T | X7R | X7R | X7R | X7T | | | | | |
| 15,000 | 153 | | X7R | X7T | X7R | X7R | X7R | X7T | | X7R | | | |
| 22,000 | 223 | | X7R | X7T | X7R | X7R | X7R | X7T | | X7R | | | |
| 33,000 | 333 | | X7S | X7T | X7R | X7R | X7R | X7T | | X7R | | X7R | |
| 47,000 | 473 | | X7S | X7T | X7R | X7R | X7R | X7T | | X7R | | X7R | |
| 68,000 | 683 | | X7S | X7T | X7R | X7R | X7R | X7T | | X7R | | X7R | |
| 100,000 | 104 | | X7S | X7T | X7R | X7R | X7R | X7T | | X7R | | X7R | |
| 150,000 | 154 | | | | | X7S | | | | X7R | | X7R | |
| 220,000 | 224 | | | | | X7S | | | | X7R | | X7R | |
| 330,000 | 334 | | | | | X7S | | | | X7R | | X7R | |
| 470,000 | 474 | | | | | X7S | | | | X7R | | X7R | |
| 1,000,000 | 105 | | | | | X7S | | | | X7R | | X7R | |
| 2,200,000 | 225 | | | | | X7S | | | | X7R | | X7R | |
| 3,300,000 | 335 | | | | | X7S | | | | X7R | | X7S | |

| Capacitance (pF) | Cap Code | C3225 1210 | | | | C4532 1812 | | | | C5750 2220 | | | |
|------------------|----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| | | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) | 2J (630V) | 2W (450V) | 2E (250V) | 2A (100V) |
| 47,000 | 473 | X7R | | | | X7R | | | | | | | |
| 68,000 | 683 | X7R | | | | X7R | | | | | | | |
| 100,000 | 104 | X7R | | X7R | | X7R | | | | | | | |
| 150,000 | 154 | X7R | | X7R | | X7R | | | X7R | | | | |
| 220,000 | 224 | | X7T | X7R | | X7R | | | X7R | | | | |
| 330,000 | 334 | | | X7R | X7R | X7R | | | X7R | | | X7R | |
| 470,000 | 474 | | | X7R | X7R | X7R | | | X7R | | | X7R | |
| 680,000 | 684 | | | X7R | X7R | X7R | | | X7R | | X7T | X7R | |
| 1,000,000 | 105 | | | X7R | X7R | X7R | | | X7R | | X7T | X7R | |
| 1,500,000 | 155 | | | X7R | X7R | X7R | | | X7R | | X7T | X7R | |
| 2,200,000 | 225 | | | X7R | X7R | X7R | | | X7R | | X7T | X7R | |
| 3,300,000 | 335 | | | X7R | X7S | X7R | | | X7R | | X7T | X7R | |
| 4,700,000 | 475 | | | X7R | X7S | X7R | | | X7R | | X7T | X7R | |
| 10,000,000 | 106 | | | X7R | X7S | X7R | | | X7R | | X7T | X7R | |
| 15,000,000 | 156 | | | X7R | X7S | X7R | | | X7R | | X7T | X7R | |

■ X6S
 ■ X7R
 ■ X7S
 ■ X7T