



# Part Number Change Notification

**Date:** November 30, 2012

**Subject:** TDK introduces a new global catalog part number for its Multilayer Ceramic Capacitor products

**Dear Distributor Partner,**

Thank you for your business and continued interest in TDK's ceramic capacitors. This letter is to inform you that we are changing the nomenclature of our ceramic capacitor **catalog part numbers**. The new catalog part number includes characters to indicate thickness and packaging details (reel size and tape width). This change also allows TDK to unify its catalog part numbers globally.

<u>Online Catalog Issued</u>	<u>TDK Catalog Part Number</u>	<u>TDK Item Description (On Labeling)</u>
Prior to January 2013	C1608C0G1E103J	C1608C0G1E103JT000N
January 2013 and Later	C1608C0G1E103J080AA	C1608C0G1E103JT000N

We ask that you reference the new **catalog part numbers** beginning with new orders dated January 2013. TDK will not accept orders for the existing part numbers beyond March 29, 2013. After this date, only orders with the new part number structure will be accepted. The final shipment from TDK's factory referencing the existing part number will be June 28, 2013.

Please be aware that the last five characters of the TDK **catalog part number** will differ from the TDK item description (internal control number) on the packaging label. For example: C1608C0G1E103J**080AA** Vs C1608C0G1E103J**T000N**.

Please reference the attached conversion table that cross-references existing **catalog part number** to the new catalog part number. TDK will also provide a conversion feature in its online cross reference tool, scheduled to launch on January 7<sup>th</sup>, 2013. This tool will be available via the ceramic capacitor portal at [www.tdk.com](http://www.tdk.com). TDK is committed to working closely with you to minimize any impact this change may have.

**Affected Product Series:** C, CKC, CKG, CLL, CGA, CGJ, CGB, CEU, CER, and CKD

**Existing TDK Part Number Conversion Table:** Please See Attached Excel File.

## 1) New TDK Part Number Nomenclature – (C, CKG, CLL, CKC Series)

C ○ 3216 ○ X7R ○ 1H ○ 105 ○ K ● 160 ● A ● E  
(1) (2) (3) (4) (5) (6) (7) (8) (9)

### 1) Series Name

C: General Purpose CKC: Array Capacitor

CKG: Stacked Capacitor (MEGACAP Type)

CLL: Ultra Low Inductance

### 2) Case Size Code JIS(EIA)

C: 0402(01005), 0510(0204), 0603(0201), 0816(0306), 1005(0402),  
1220(0508), 1608(0603), 1632(0612), 2012(0805), 3216(1206), 3225(1210),  
4520(1808), 4532(1812), 5750(2220), 7563(3025)

CKC: M25(1327), L22(0805), L44(0805), A43(1206)

CKG: 32K, 45K, 45N, 57K, 57N

CLL: C1A(0603), E1A(0805)

### 3) Temperature Characteristics

CH: -25 to +85°C, 0±60ppm/°C C0G: -55 to +125°C, 0±30ppm/°C

JB: -25 to +85°C, ±10% X5R: -55 to +85°C, ±15% X6S: -55 to +105°C, ±22%

X7R: -55 to +125°C, ±15% X7S: -55 to +125°C, ±22%

X7T: -55 to +125°C, +22/-33% X8R: -55 to +150°C, ±15%

### 4) Rated Voltage Code

0G:4V, 0J:6.3V, 1A:10V, 1C:16V, 1E:25V, 1V:35V, 1H:50V, 2A:100V, 2D:200V,  
2E:250V, 2W:450V, 2H:500V, 2J:630V, 3A:1000V, 3D:2000V, 3F: 3000V

### 5) Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

Ex. 105 = 1,000,000pF = 1,000nF = 1μF

## 6) Capacitance Tolerance

W:  $\pm 0.05\text{pF}$ , B:  $\pm 0.10\text{pF}$ , E:  $\pm 0.20\text{pF}$ , C:  $\pm 0.25\text{pF}$ , D:  $\pm 0.50\text{pF}$ , F:  $\pm 1\%$ ,  
G:  $\pm 2\%$ , J:  $\pm 5\%$ , K:  $\pm 10\%$ , M:  $\pm 20\%$

## 7) Thickness Code

020:0.20mm, 030:0.30mm, 045:0.45mm, 050:0.50mm, 055:0.55mm,  
060:0.60mm, 070:0.70mm, 080:0.80mm, 085:0.85mm, 100:1.00mm,  
110:1.10mm, 115:1.15mm, 125:1.25mm, 130:1.30mm, 160:1.60mm,  
200:2.00mm, 230:2.30mm, 250:2.50mm, 280:2.80mm, 320:3.20mm,  
335:3.35mm, 500:5.00mm

## 8) Packaging Code

A: 178mm Reel / 4mm Pitch  
B: 178mm Reel / 2mm Pitch  
J: 330mm Reel / 8mm Pitch  
K: 178mm Reel / 8mm Pitch  
L: 330mm Reel / 12mm Pitch

## 9) Special Code

A: Internal Code, B: Internal Code, C: Internal Code  
E: Soft Termination, F: High-Q(Std Design), G: High-Q(New Design)  
H: MEGACAP(Std), J: MEGACAP(Auto), K: Soft Term Array(Std)  
L: Soft Term Array(Auto), M: Open Mode Design

## 2) New TDK Part Number Nomenclature – (CGA, CGJ, CGB, CEU Series)

CGA ● 5 ● L ● 3 ● X7R ● 1H ● 105 ● K ● 160 ● A ● E  
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)

### 1) Series Name

CGA: Automotive Grade CEU: Serial Design

CGJ: High Reliability Grade CGB: Low Profile

### 2) Case Size Code JIS(EIA)

1: 0201 (0603) 5: 1206 (3216) 9: 2220 (5750)

2: 0402 (1005) 6: 1210 (3225)

3: 0603 (1608) 7: 1808 (4520)

4: 0805 (2012) 8: 1812 (4532)

### 3) Thickness Code

T:0.19mm, A:0.30mm, B:0.50mm, C:0.60mm, E:0.80mm, F:0.85mm,  
G:1.10mm, H:1.15mm, J:1.25mm, K:1.30mm, L:1.60mm, M:2.00mm,  
N:2.30mm, P:2.50mm, Q:2.80mm, R:3.20mm

### 4) Life Test Condition

1: 1.0 x Rated Voltage 3: 1.5 x Rated Voltage

2: 2.0 x Rated Voltage 4: 1.2 x Rated Voltage

### 5) Temperature Characteristics

C0G: -55 to +125°C, 0±30ppm/°C JB: -25 to +85°C, ±10%

X5R: -55 to +85°C, ±15% X6S: -55 to +105°C, ±22% X7R: -55 to +125°C, ±15%

X7S: -55 to +125°C, ±22% X7T: -55 to +125°C, +22/-33%

X8R: -55 to +150°C, ±15%

### 6) Rated Voltage Code

0G:4V, 0J:6.3V, 1A:10V, 1C:16V, 1E:25V, 1V:35V, 1H:50V, 2A:100V, 2D:200V,  
2E:250V, 2W:450V, 2H:500V, 2J:630V, 3A:1000V, 3D:2000V, 3F: 3000V

### **7) Nominal Capacitance (pF)**

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

Ex. 105 = 1,000,000pF = 1,000nF = 1 $\mu$ F

### **8) Capacitance Tolerance**

C:  $\pm 0.25$ pF, D:  $\pm 0.50$ pF, F:  $\pm 1\%$

J:  $\pm 5\%$ , K:  $\pm 10\%$ , M:  $\pm 20\%$

### **9) Thickness Code**

019:0.19mm, 030:0.30mm, 050:0.50mm, 060:0.60mm, 080:0.80mm,  
085:0.85mm, 110:1.10mm, 115:1.15mm, 125:1.25mm, 130:1.30mm,  
160:1.60mm, 200:2.00mm, 230:2.30mm, 250:2.50mm, 280:2.80mm,  
320:3.20mm

### **10) Packaging Code**

A: 178mm Reel / 4mm Pitch

B: 178mm Reel / 2mm Pitch

K: 178mm Reel / 8mm Pitch

### **11) Special Code**

A: Internal Code, B: Internal Code, C: Internal Code

D: Conductive Epoxy, E: Soft Termination, M: Open Mode Design

### 3) New TDK Part Number Nomenclature – (CER -> YNA Series only)

CER Series will now be referred to as the YNA Series: (Example)

CERB2MX5R0G105M

YNA18B2M0G105M

YNA • 18 • B • 2M • 0G • 105 • M  
(1) (2) (3) (4) (5) (6) (7)

#### 1) Series Name

YNA: Controlled ESR Noise Absorber

#### 2) Case Size Code

15: 0402(1005), 18: 0603(1608), 21: 0805(2012), 31: 1206(3216)

#### 3) Product Type

A: Std 2 Terminals Type

B: 3 Terminals Type

C: Reverse Geometry Type

#### 4) ESR Value

1<sup>st</sup> Digit: ESR Multiplier: 1: 10, 2: 100, 3: 1000

2<sup>nd</sup> Digit: ESR Significant Figure: A:1.0, B:1.5, C:2.0, D:2.5, E:3.0, F:3.5, G:4.0, H:4.5, J:5.0, K:5.5, L:6.0, M:6.5, N:7.0, P:7.5, Q:8.0, R:8.5, S:9.0, T:9.5

#### 5) Rated Voltage Code

0G: 4V, 0J: 6.3V, 1A: 10V, 1C: 16V

#### 6) Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

Ex. 105 = 1,000,000pF = 1,000nF = 1μF

#### 7) Capacitance Tolerance

K: ±10%, M: ±20%, S: +50%,-20%

#### 4) New TDK Part Number Nomenclature – (CKD -> YFF Series only)

CKD Series will now be referred to as the YFF Series: (Example)

CKD310JB0J226S

YFF31PC0J226M

YFF ● 31 ● PC ● 0J ● 226 ● M  
(1) (2) (3) (4) (5) (6)

##### 1) Series Name

YFF: Feed Through Filter

##### 2) Case Size Code (metric)

15: 0402(1005), 18: 0603(1608), 21: 0805(2012), 31: 1206(3216)

##### 3) Product Classification

PC: Standard 3 Terminals for Power Line

SC: Standard 3 Terminals for Signal Line

PH: Thickness=0.80mm, for Power Line

PW: Low ESL for Power Lines

SW: Low ESL for Signal Lines

HC: High Current (5A and higher)

##### 4) Rated Voltage Code

0G: 4V, 0J: 6.3V, 1A: 10V, 1C: 16V

##### 5) Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

Ex. 226 = 22,000,000pF = 22,000nF = 22μF

##### 6) Capacitance Tolerance

K: ±10%, M: ±20%, S: +50%,-20%



Authorized signatory for TDK/TDK-EPC /Corporation (Manufacturer)

S. Maloy

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Signature of Dept.

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