

# TDK MLCC Catalog Number Description

## C.3216.X7R.1H.105.K.160.A.B

Series Name	
Description	
C	General Purpose
CKC	Array
CKG	MEGACAP
CLL	Ultra Low Inductance

Case Size Code				
	C	CKC	CKG	CLL
0.40 x 0.20	0402			
0.50 x 1.00	0510			
0.60 x 0.30	0603			
0.80 x 1.60	0816			
0.90 x 0.60		N27		
1.00 x 0.50	1005			
1.25 x 2.00	1220			
1.37 x 1.00		M25		
1.60 x 0.80	1608			C1A
1.60 x 3.20	1632			
2.00 x 1.25	2012	L22 L44		E1A
3.20 x 1.60	3216	A43		G1A
3.20 x 2.50	3225			
3.80 x 2.90			32K	
4.50 x 2.00	4520			
4.50 x 3.20	4532			
5.50 x 4.00			45K 45N	
5.70 x 5.00	5750			
6.50 x 5.50			57K 57N	
7.50 x 6.30	7563			

Temperature Characteristics		
Temperature	Temperature Coefficient or Capacitance Change	
CH	-25°C to +85°C	0±60ppm/°C
C0G	-55°C to +125°C	0±30ppm/°C
NP0	-55°C to +150°C	0±30ppm/°C
JB	-25°C to +85°C	±10%
X5R	-55°C to +85°C	±15%
X6S	-55°C to +105°C	±22%
X7R	-55°C to +125°C	±15%
X7S	-55°C to +125°C	±22%
X7T	-55°C to +125°C	+22, -33%
X8R	-55°C to +150°C	±15%

Capacitance Tolerance	
Description	
B	± 0.10 pF
C	± 0.25 pF
D	± 0.50 pF
F	± 1%
G	± 2%
J	± 5%
K	± 10%
M	± 20%

Special Code	
Description	
A	TDK internal code
B	TDK internal code
C	TDK internal code
E	Soft Termination
H	MEGACAP (General)
J	MEGACAP (Automotive)
K	Soft Term Array (General)
L	Soft Term Array (Automotive)
M	Open Mode
N	TDK internal code

Thickness Code	
Description	
020	0.20 mm
030	0.30 mm
045	0.45 mm
050	0.50 mm
055	0.55 mm
060	0.60 mm
070	0.70 mm
080	0.80 mm
085	0.85 mm
100	1.00 mm
110	1.10 mm
115	1.15 mm
125	1.25 mm
130	1.30 mm
160	1.60 mm
200	2.00 mm
230	2.30 mm
250	2.50 mm
280	2.80 mm
290	2.90 mm
320	3.20 mm
335	3.35 mm
500	5.00 mm

Packaging Code	
Description	
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

Rated Voltage Code										
	A	C	D	E	F	G	H	J	V	W
0						4V		6.3V		
1	10V	16V		25V			50V		35V	
2	100V		200V	250V				630V		450V
3	1KV		2KV		3KV					

**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. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1000nF = 1μF

# TDK MLCC Catalog Number Description

## CGA.5.L.3.X7R.1H.105.K.160.A.E

Series Name	
Description	
CGA	Automotive Grade
CGJ	High Reliability Grade
CEU	Serial Design

Case Size Code	Description		
	CGA	CGJ	CEU
0.60 x 0.30	1		
1.00 x 0.50	2	2	
1.60 x 0.80	3	3	3
2.00 x 1.25	4	4	4
3.20 x 1.60	5	5	
3.20 x 2.50	6		
4.50 x 2.00	7		
4.50 x 3.20	8		
5.70 x 5.00	9		

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

Capacitance Tolerance	
Description	
C	± 0.25 pF
D	± 0.50 pF
F	± 1%
J	± 5%
K	± 10%
M	± 20%

Special Code	
Description	
A	TDK internal code
B	TDK internal code
C	TDK internal code
D	Conductive Epoxy
E	Soft Termination
M	Open Mode

Packaging Code	
Description	
A	178mm Reel / 4mm Pitch
B	178mm Reel / 2mm Pitch
K	178mm Reel / 8mm Pitch

**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. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1000nF = 1μF

Thickness Code	
Description	
030	0.30 mm
050	0.50 mm
055	0.55 mm
060	0.60 mm
080	0.80 mm
085	0.85 mm
110	1.10 mm
115	1.15 mm
125	1.25 mm
130	1.30 mm
160	1.60 mm
200	2.00 mm
230	2.30 mm
250	2.50 mm
280	2.80 mm
320	3.20 mm

Life Test Condition or Function Identification Code	
Description	
1	1.0 x Rated Voltage
2	2.0 x Rated Voltage
3	1.5 x Rated Voltage
4	1.2 x Rated Voltage
A	ESD Protection

Temperature Characteristics		
Temperature	Temperature Coefficient or Capacitance Change	
C0G	-55°C to +125°C	0±30ppm/°C
NP0	-55°C to +150°C	0±30ppm/°C
X5R	-55°C to +85°C	±15%
X6S	-55°C to +105°C	±22%
X7R	-55°C to +125°C	±15%
X7S	-55°C to +125°C	±22%
X7T	-55°C to +125°C	+22, -33%
X8R	-55°C to +150°C	±15%

Rated Voltage Code	Description						
	A	C	D	E	F	J	V
0						6.3V	
1	10V	16V		25V		50V	35V
2	100V		200V	250V		500V	630V
3	1KV		2KV		3KV		

# TDK MLCC Catalog Number Description

## CGB.3.C.1.X5R.0J.106.M.065.A.C

Series Name	Description
CGB	Low Profile

Case Size Code	CGB
0.60 x 0.30	1
1.00 x 0.50	2
1.60 x 0.80	3
2.00 x 1.25	4

Thickness Code	Description
T	0.22 mm max.
A	0.33 mm max.
S	0.50 mm max.
B	0.55 mm max.
C	0.65 mm max.

Capacitance Tolerance	Description
K	±10%
M	±20%

Special Code	Description
B	TDK internal code
C	TDK internal code

Packaging Code	Description
A	178mm Reel / 4mm Pitch
B	178mm Reel / 2mm Pitch

**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. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1000nF = 1μF

Thickness Code	Description
022	0.22 mm max.
033	0.33 mm max.
050	0.50 mm max.
055	0.55 mm max.
065	0.65 mm max.

Life Test Condition	Description
1	1.0 x Rated Voltage
3	1.5 x Rated Voltage

Temperature Characteristics	Temperature	Tolerance
JB	-25°C to +85°C	±10%
X5R	-55°C to +85°C	±15%
X6S	-55°C to +105°C	±22%
X7R	-55°C to +125°C	±15%
X7S	-55°C to +125°C	±22%

Rated Voltage Code	G	J	A	C	E
0	4V	6.3V			
1			10V	16V	25V