

TDK MLCC Catalog Number Description

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

Series Name	
Description	
C	General Purpose
CKC	Array Capacitor
CKG	Stacked Capacitor
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%

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

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

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

	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	
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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

Temperature Characteristics

Temperature	Temperature Coefficient or Capacitance Change
C0G	-55°C to +125°C 0±30ppm/°C
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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%

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

Rated Voltage Code

	A	C	D	E	F	H	J	V	W
0							6.3V		
1	10V	16V		25V		50V		35V	
2	100V		200V	250V		500V	630V		450V
3	1KV		2KV		3KV				

TDK MLCC Catalog Number Description

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

