

MULTILAYER CERAMIC CAPACITORS

Radial Leaded, Epoxy Dipped Multilayer Ceramic Capacitors

Description

Faithful Link Radial leaded, Epoxy dipped Multilayer Ceramic Capacitors are build by superior moisture and shock resistant epoxy coating can be supplied in bulk or taped and reel package for automatic insertion in PCB. Our RD series capacitors have wide applications in computer, data processing, telecommunion, industrial control and instrumentation equipment, etc.

HOW TO ORDER

Faithful Link Part Number are designed as:

Product Type: R 20 Z5U 104 Z 5 H 5 05 B

A: Mono Radial
[Radial Leaded]

Size Code: See sizechart for available size by value and voltage

Temperature Characteristic: NPO
X7R
Z5U

Capacitance (pf): The first two digits are significant of capacitance, The last digit is multiplier
0= *1 4= *10000
1= *10 5= *100000
2= *100 9= *0.1
3= *1000

Capacitance Tolerance: C= ±0.25pF K= ±10%
D= ±0.5pF M= ±20%
G= ±2% Z= +80%-20%
J= ±5% P= +100%-0%

Color: B=Blue
Y=Yellow

Working Voltage: 02= 250V
05= 50V
10 = 100V
20=200V

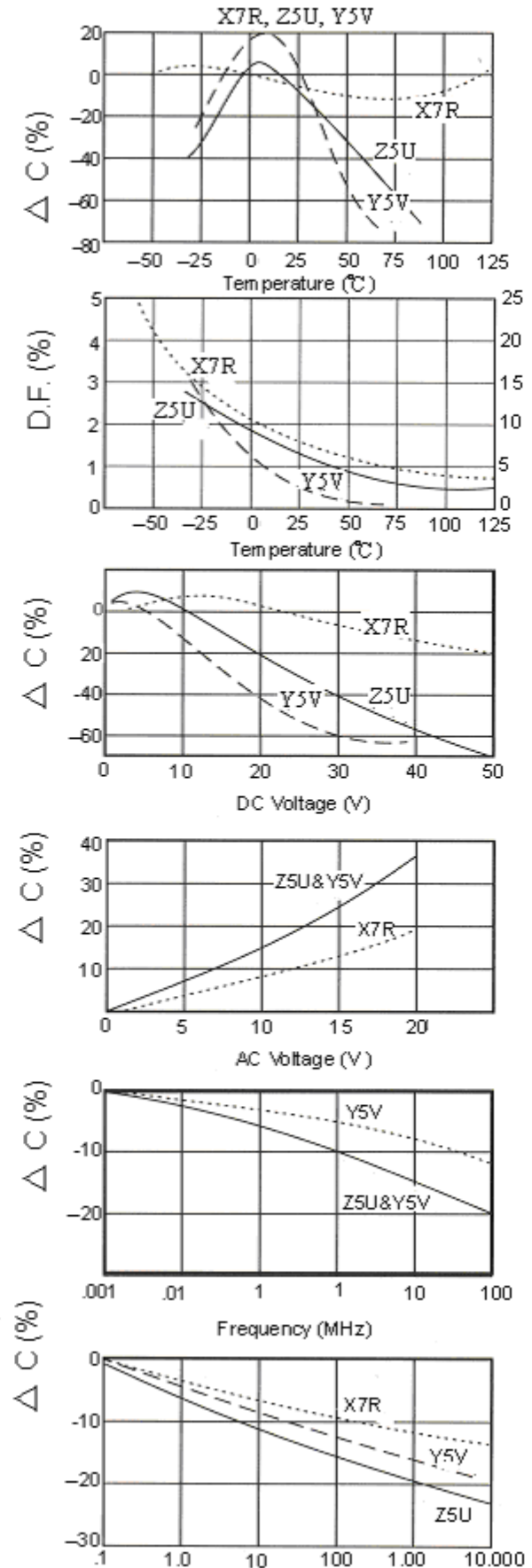
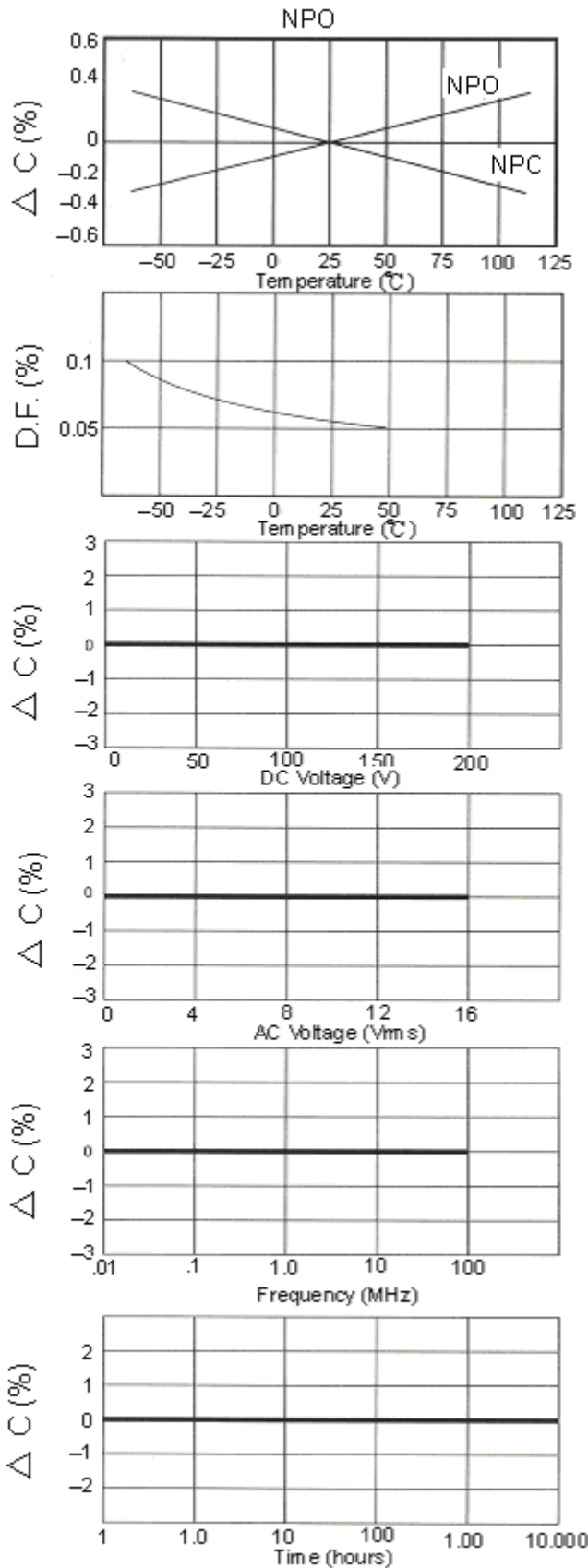
Lead Length
3= 3mm 7= 7mm A=2.5mm
4= 4mm 8= 8mm B= 3.5mm
5= 5mm 9= 9mm C= 4.5mm
6= 6mm 0=10mm D=5.5mm
E= 6.5mm G= 8.5mm
F= 7.5mm H= 9.5mm
S= 25mm Min. [Long Leaded]
T= Tape & Reel X= Pending
U= Tape & AMMD Pack

Lead Style: L: Straight leads
K: Outward kink
H: High seated & right angle
A: High seated & slope angle

Lead Spacing: 2= 2.54mm (0.100")
5= 5.08mm (0.200")
6= 6.35mm (0.250")
7= 7.60mm (0.300")

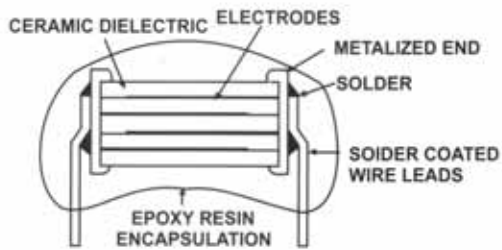
MULTILAYER CERAMIC CAPACITORS

TYPICAL PERFORMANCE CURVES

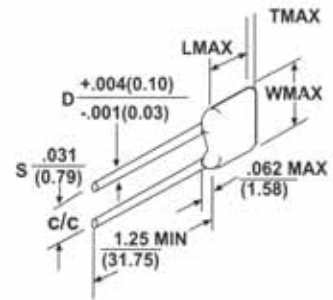


MULTILAYER CERAMIC CAPACITORS

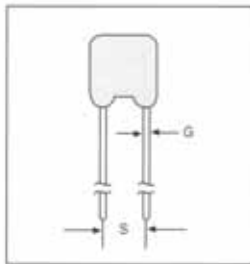
MONOLITHIC CONSTRUCTION



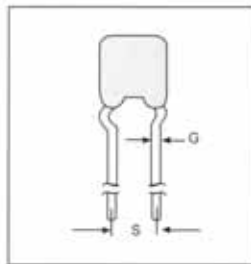
CASE SIZE



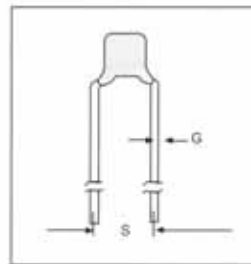
LEAD STYLES:



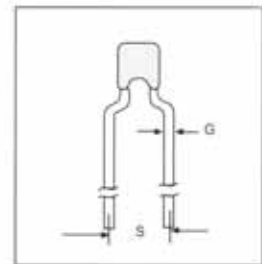
STYL E L
STRAIGHT LEAD



STYLE K
OUTWARD KINK



STYLE A
SLOPE SEATED



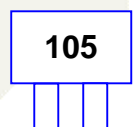
STYLE H
HIGH SEATED
ASSEMBLY

SIZE CODE and DIMENSIONS: Units in inches (millimeter)

Size CODE	L	W	T	Lead Diameter (G)	Lead Length (L)	Lead Spacing (S)	Lead Style
R15	0.150 (3.81)	0.150 (3.81)	0.100 (2.54)	0.20 (2.54)	0.1 (2.5) 1.0 (25.0)	0.1 (2.54)	L
						0.2 (5.08)	H.K.A
						0.3 (7.62)	H.
R20	0.200 (5.08)	0.200 (5.08)	0.125 (3.18)	0.2 (0.5)	0.1 (2.5) 1.0 (25.0)	0.1 (2.54)	L.K
						0.2 (5.08)	H.K
						0.25 (6.35)	H
						0.3 (7.62)	H
R30	0.300 (7.62)	0.300 (7.62)	0.150 (3.81)	0.2 (0.5)	0.1 (2.5) 1.0 (25)	0.2 (5.08)	H
						0.3 (7.62)	H

Marking

- First line marked the Capacitance Value.
- Second line marked the TOL. WVDC, & T.C
- TDL: J= ±5%, K= ±10%, M= ±20%, Z= +80/-20%
- WVDC: 2= 25V, 5= 50V, A=100V, B= 200V
- T.C.: N= NPO, X= X7R, Z= Z5U



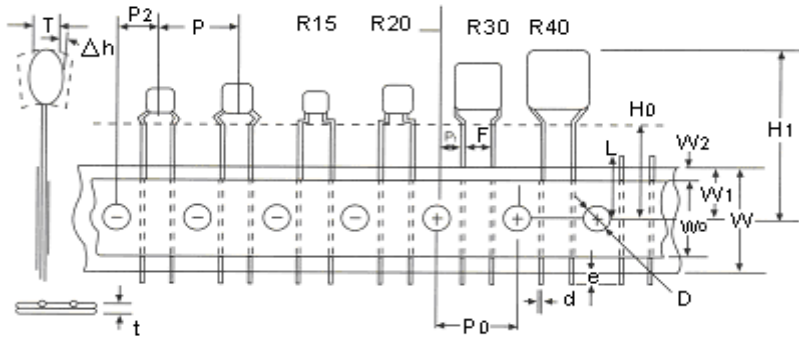
Color	Size Code	Capacitance	Tolerance	Rated Voltage	Temp. Char.
Blue	R15, R20, R30	▼	—	—	—
Yellow	R15	▼	—	—	—
Yellow	R20, R30	▼	▼	▼	▼

MULTILAYER CERAMIC CAPACITORS

Radial Tape & Reel

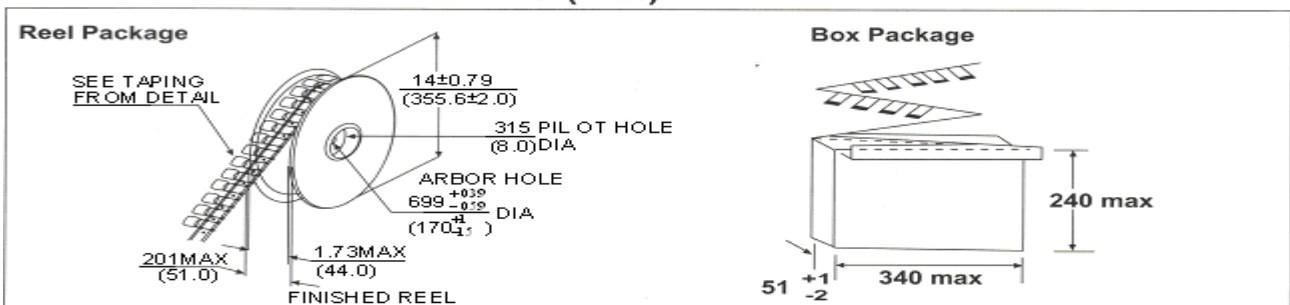
Faithful Link has developed a tape and reel system of radially leaded components, which is suitable for the auto insertion machine.

Dimension: Units in inches (millimeter)



Description	Symbol	Dimensions	Description	Symbol	Dimensions
Body	A	0.4x0.4 [10.16x10.16] Maximum	Feed hole pitch	P ₀	±.040 [±1.02] Accumulative pitch over two units.
Wire lead diameter (Mono-Kap)	d	.020 ^{+0.0024} _{-0.0020} [0.51 ^{+0.06} _{-0.05}]	Feed hole off alignment	P ₁	.150±.020 [3.81±0.51]
Feed Hole Diameter	D	0.157±0.012 (4±0.3)	Overall tape thickness	t	.035 [0.89] Maximum
Lead end protrusions		0 ⁺⁰ ₋ .120 [0 ⁺⁰ _{-3.05}]	Body thickness	T	.157 [3.99] Maximum
Lead spacing	F	.20±0.30 [5.08±0.76] .10±0.30 [2.54±0.76]	Lead crimp height	H ₀	.630±0.02 to .710±.020 [16.0±.051 to 18.0±.051]
Body inclination	h	0±0.4 [0 ±1.02]	Carrier tape width	W	.710±.020 [18.03±0.51]
Top height	H ₁	1.27 [32.25] Maximum	Adhesive tape width	W ₀	.510 [12.95] Reference
Rejected component out height	L	.433 [11.00] Maximum	Feed hole height off alignment	W ₁	.350 ⁺⁰ _{-0.020} [8.89 ⁺⁰ _{-0.51}]
Taping pitch	P	.500 ±0.39 [12.7±0.99]	Adhesive tape margin	W ₂	.120 [3.05] Reference

REEL and BOX DIMENSIONS (mm)



PACKAGING QUANTITY

Size Code	Taping Type		Bulk Type
	Quantity per reel	Quantity per box	Quantity per bag
R15	2,500	2,000	1,000
R20	2,500	2,000	1,000
R30	2,500	2,000	1,000

MULTILAYER CERAMIC CAPACITORS

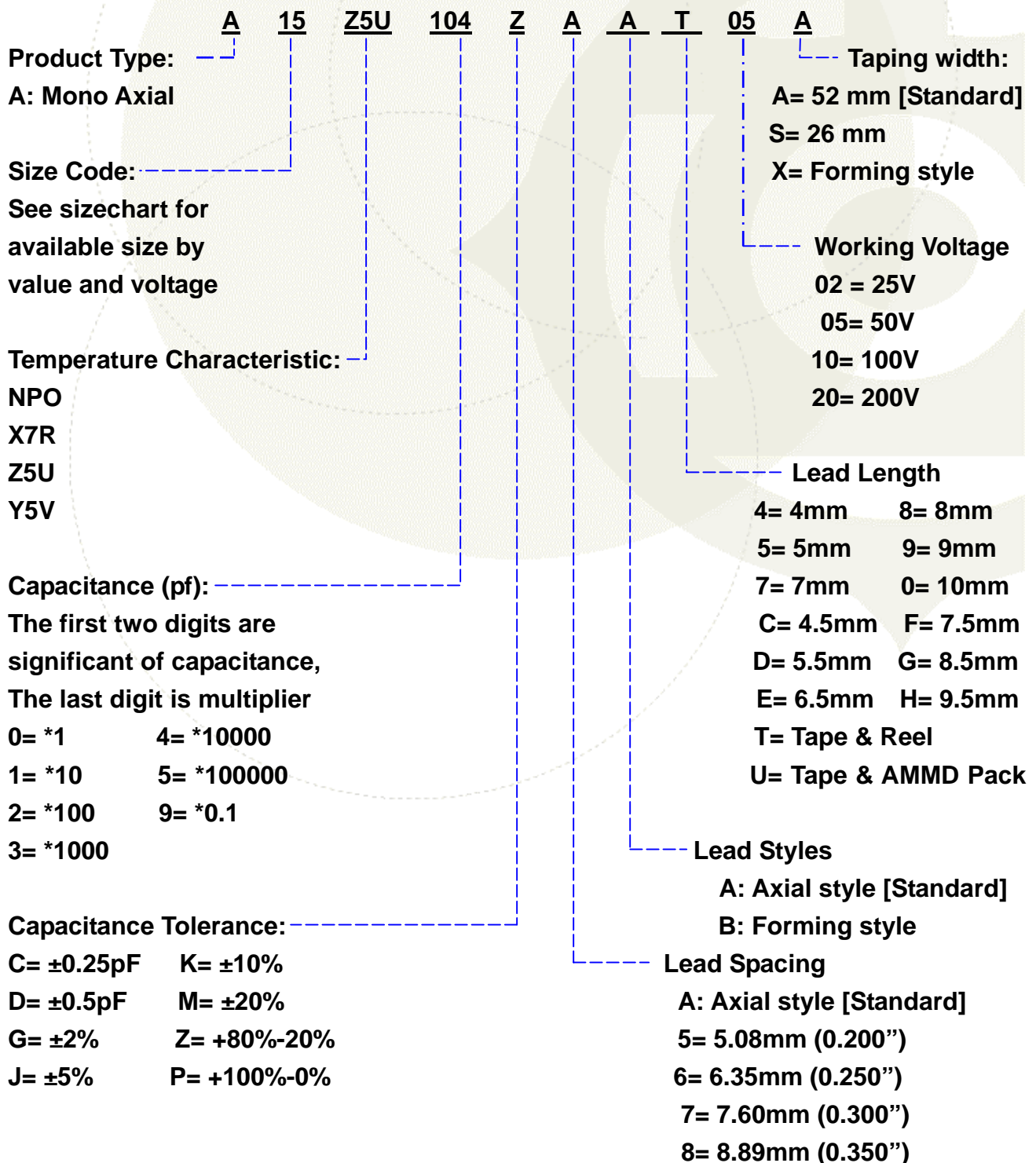
Axial Leaded, Epoxy Coated Multilayer Ceramic Capacitors

Description

Faithful Link Axial leaded, Epoxy Coated Multilayer Ceramic Capacitors are built by superior moisture and shock resistant epoxy coating. These capacitors are supplied in both bulk or taping and reel package for automatic insertion and sequencing with any axial leaded components.

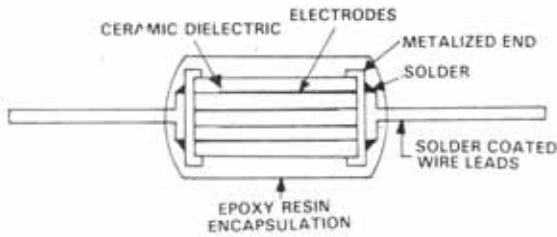
HOW TO ORDER

Faithful Link Part Number are designed as:

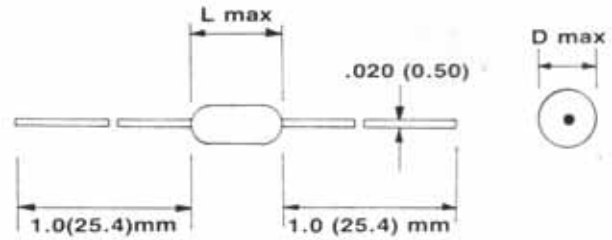


MULTILAYER CERAMIC CAPACITORS

MONOLITHIC CONSTRUCTION



CASE SIZE



SIZE CODE and DIMENSIONS: Units in inches (millimeter)

SIZE CODE	L	D	LEAD DIA	LEAD LENGTH
A15	.150 [3.81] Max.	.100 [2.54] Max.	.020 [0.50]	1.00 [25.4]
A20	.200 [5.08] Max.	.125 [3.81] Max.	.020 [0.50]	1.00 [25.4]

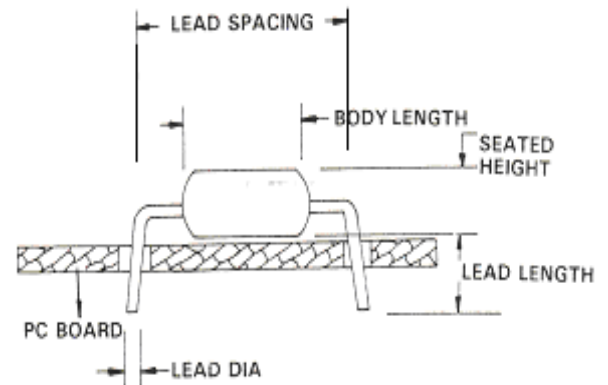
AXIAL FORMING TYPE:

Our axial-leaded capacitors can be supplied in forming type, which can only be in bulk package. 1,000 pcs per bag.

The dimensions are illustrated as the Following:

LEAD SPACING TOL: +/- 0.031" [0.79mm]
 5= 0.200" [5.08mm] 7= 0.300" [7.62mm]
 6= 0.250" [6.36mm] 8= 0.350" [8.90mm]

LEAD LENGTH TOL: +/- 0.031" [0.79mm]
 4= 0.157" [4.0mm] 0= 0.394" [10.0mm]
 5= 0.197" [5.0mm] C= 0.177" [4.50mm]
 6= 0.236" [6.0mm] D= 0.217" [5.50mm]
 7= 0.276" [7.0mm] E= 0.256" [6.50mm]
 8= 0.315" [8.0mm] F= 0.295" [7.50mm]
 9= 0.354" [9.0mm] G= 0.335" [8.50mm]



MARKING

- First line marked the Capacitance value.
- Second line marked the TOL, WVDC, & T.C.
- TOL: J=±5%, K=±10%, M=±20%, Z=+80/-20%
 WVDC: 2=25V, 5=50V, A=100V, B=200V
- T.C.: N=NPO, X=X7R, Z=Z5U, Y5V



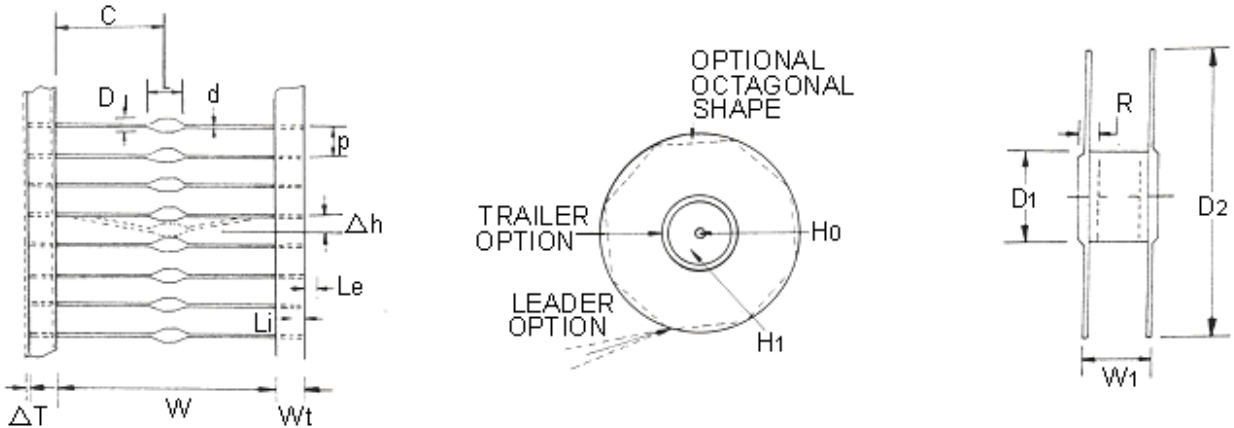
SIZE CODE	Capacitance	Tolerance	Rated Voltage	Temp. Char.
A15	▼			
A20	▼	▼	▼	▼

MULTILAYER CERAMIC CAPACITORS

AXIAL TAPE & REEL:

Our axial-leaded capacitors can be supplied taped and reeled. A 12 inch leader of tape starts and ends each reel. A layer of 50/60 lb. Kraft paper separates each layer of components, and a layer of corrugated cardboard over the last layer protects the contents of the reel. Reels are to EIA standards (RS-296E Class, I, Level I).

Dimension: Units in inches (millimeter)



Description	Symbol	Dimensions	Description	Symbol	Dimensions
Pitch of Component	P	.200±.020 [5.08±0.51]	Centered	C	±.030 [±0.76]
Cumulative Tolerance of P over 6 consecutive units		±.0059 [±0.15]	Core diameter	D ₁	1.375-3.260 [34.90-92.10]
Tape width	W _t	.236±.039 [6±1.0]	Reel Diameter	D ₂	14 MAX. (355.60)
Lead Wire Protrusion	L _e	.062 Max. [1.57]	Core Width	W ₁	2.750±0.060 [69.85±1.52]
Lead Extension into Tape	L _i	.156 Min. [3.96]	Recess Depth	R	.374 MIN. [9.5]
Offset Between Tapes	T	.031 Max. [0.8]	Arbor Hole	H ₀	.510-.608 [15.5-18.0]
Width Between Tapes	W	2.06±.062 [52.37±1.57]	Deflection from Nominal position	h	.047 MAX. [1.19]
Pilot Hole DIA	H ₁	.315 [8.0]	Leader option	L	12 MIN. [304.8]

PACKAGING QUANTITY

SIZE CODE	Taping Type		Bulk Type
	Quantity per reel	Quantity per box	Quantity per bag
A15	10,000	5,000	1,000
A20	10,000	5,000	1,000