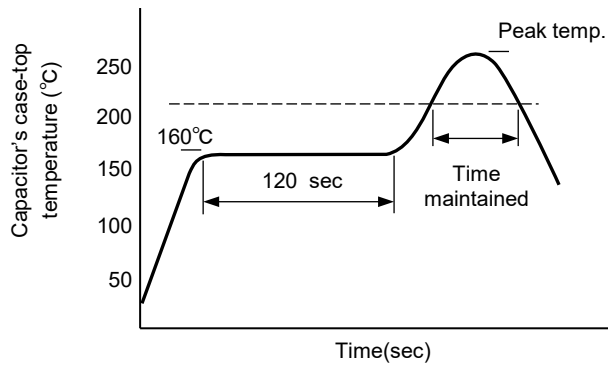


Recommended reflow soldering



Size code	C, D, D8	F, G, G12, G16	
Peak temp.	260°C (255°C)	245°C	260°C
Time in peak temperature	≥ 250°C 5 s (10 s)	≥ 240°C 10 s	≥ 250°C 5 s
Time maintained	≥ 230°C 30 s	≥ 230°C 30 s	≥ 230°C 30 s
	≥ 217°C 40 s	≥ 217°C 40 s	≥ 217°C 40 s
	≥ 200°C 70 s	≥ 200°C 70 s	≥ 200°C 70 s
Reflow cycles	2 times	2 times	1 time

* For reflow, use a thermal condition system such as infrared and radiation (IR) or hot blas.

* Reflow temperature is measured on capacitor's case top.

Specifications for radial lead type

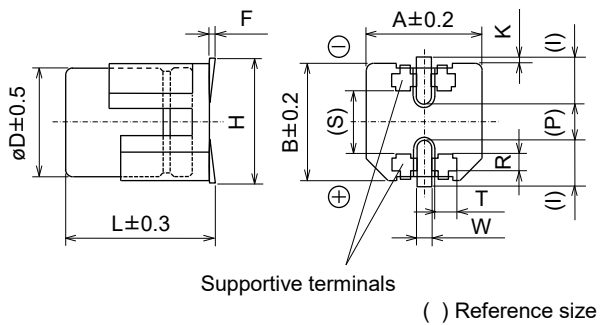
- Flow soldering condition
- < RoHS compliant >

	Temperature	Time	Flow number
Soldering condition	260°C + 5°C or less	10 sec +1 sec or less	1 time

Vibration-proof products

The size and shape are different from standard products. Please inquire details of our company.

< Size code : D, D8 >

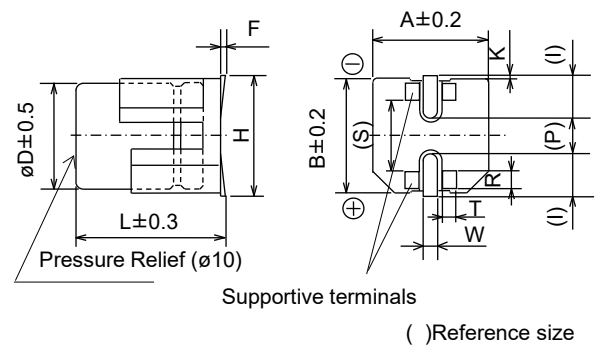


Unit : mm

Size code	øD	L	A, B	H max.	F	I	W
D	6.3	6.1	6.6	7.8	0 to +0.15	2.4	0.65±0.1
D8	6.3	8.0	6.6	7.8	0 to +0.15	2.4	0.65±0.1

Size code	P	K	R	S	T
D	2.2	0.35 ^{+0.15} _{-0.20}	1.1±0.2	3.3	1.05±0.2
D8	2.2	0.35 ^{+0.15} _{-0.20}	1.1±0.2	3.3	1.05±0.2

< Size code : F, G, G12, G16 >



Unit : mm

Size code	øD	L	A, B	H max.	F	I	W
F	8.0	10.5	8.3	10.0	0 to +0.15	3.4	1.2±0.2
G	10.0	10.5	10.3	12.0	0 to +0.15	3.5	1.2±0.2
G12	10.0	12.8	10.3	11.0 ^{*1}	0 to +0.15	3.2	1.2±0.2
G16	10.0	16.8	10.3	11.0 ^{*1}	0 to +0.15	3.2	1.2±0.2

^{*1}:±0.2

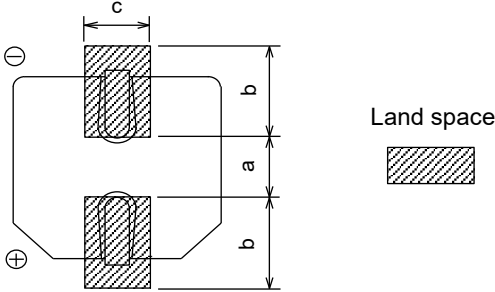
Size code	P	K	R	S	T
F	3.1	0.70±0.2	0.70±0.2	5.3	1.3±0.2
G	4.6	0.70±0.2	0.70±0.2	6.9	1.3±0.2
G12	4.6	—	0.70±0.2	6.9	1.3±0.2
G16	4.6	—	0.70±0.2	6.9	1.3±0.2

Mounting specification

Land / Pad pattern

The circuit board land/pad pattern size for chip capacitors is specified in the following table.
The land pitch influences installation strength.

● Standard products



Unit : mm

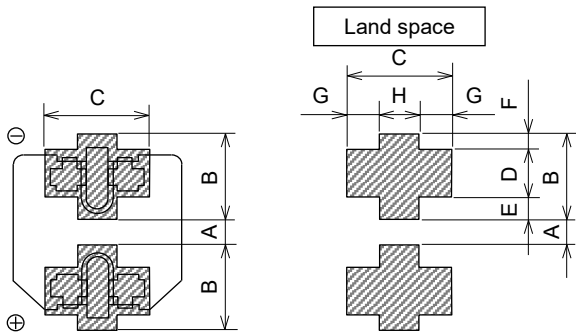
Size code	a	b	c
C : $\phi 5 \times L5.8$	1.5	2.8	1.6
D : $\phi 6.3 \times L5.8$	1.8	3.2	1.6
D8 : $\phi 6.3 \times L7.7$	1.8	3.2	1.6
F : $\phi 8 \times L10.2$	3.1	4.0	2.0
G : $\phi 10 \times L10.2$	4.6	4.1	2.0
G12 : $\phi 10 \times L12.5$	4.6	4.1	2.0
G16 : $\phi 10 \times L16.5$	4.6	4.1	2.0

When size "a" is wide, back fillet can be made, decreasing fitting strength.

* Take mounting conditions, solderability and fitting strength into consideration when selecting parts for your design.

● Vibration-proof products

< Size code : D, D8 >



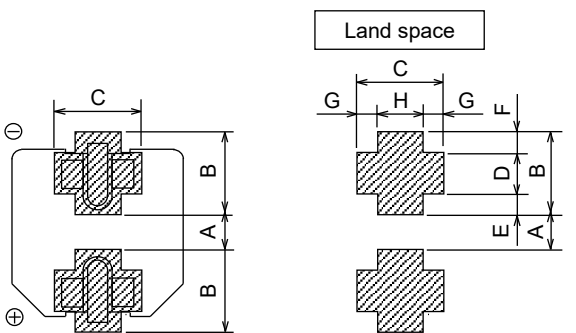
Unit : mm

Size code	A	B	C	D
D : $\phi 6.3 \times L6.1$	1.2	3.6	3.2	2.0
D8 : $\phi 6.3 \times L8.0$	1.2	3.6	3.2	2.0

Size code	E	F	G	H
D : $\phi 6.3 \times L6.1$	0.95	0.65	1.0	1.2
D8 : $\phi 6.3 \times L8.0$	0.95	0.65	1.0	1.2

Larger dimension of "A" may prevent back fillet from being formed adequately to obtain required solder strength.

< Size code : F, G, G12, G16 >



Unit : mm

Size code	A	B	C	D
F : $\phi 8 \times L10.5$	2.7	4.0	4.7	1.3
G : $\phi 10 \times L10.5$	3.9	4.4	4.7	1.3
G12 : $\phi 10 \times L12.8$	3.9	4.4	4.7	1.3
G16 : $\phi 10 \times L16.8$	3.9	4.4	4.7	1.3

Size code	E	F	G	H
F : $\phi 8 \times L10.5$	1.0	1.7	1.1	2.5
G : $\phi 10 \times L10.5$	1.2	1.9	1.1	2.5
G12 : $\phi 10 \times L12.8$	1.2	1.9	1.1	2.5
G16 : $\phi 10 \times L16.8$	1.2	1.9	1.1	2.5

When size "A" is wide, back fillet can be made, decreasing fitting strength.

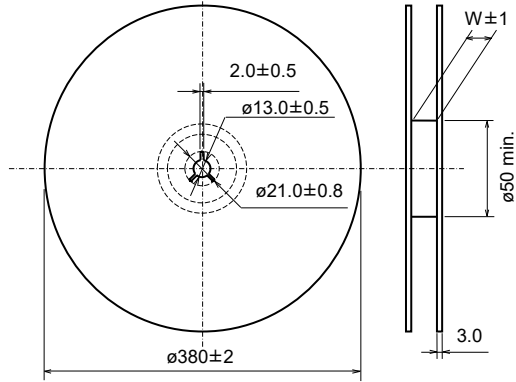
* Take mounting conditions, solderability and fitting strength into consideration when selecting parts for your design.

* The vibration-proof capacitors of size $\phi 6.3$ has support terminals extending from the bottom side to the lead edge. Then, make sure to find appropriate soldering conditions to form fillet on the support terminals if required for appearance inspection.

Packaging specifications

Specifications for surface mount type

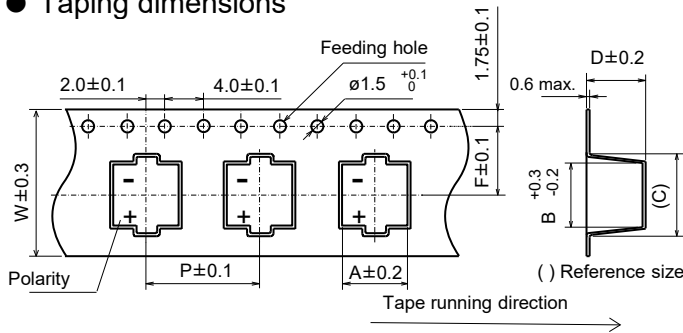
● Reel dimensions (not to scale)



Unit : mm

Size code	W
C	14.0
D, D8	18.0
F, G, G12, G16	26.0

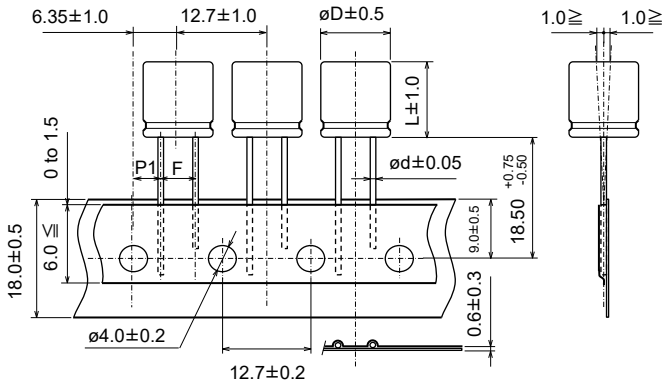
● Taping dimensions



※Ask factory for technical specifications

Radial lead type

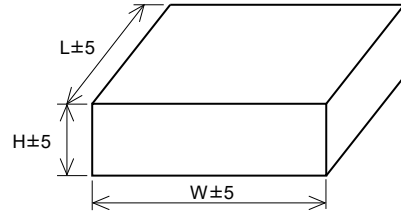
● Taping dimensions



Unit : mm

Size code	øD	L	ød	F	P1
F	8.0	9.5	0.6	3.5±0.5	4.60±0.50
G	10.0	9.5	0.6	5.0+0.8/-0.2	3.85±0.50
G12	10.0	11.7	0.8	5.0+0.8/-0.2	3.85±0.50
G16	10.0	15.7	0.8	5.0+0.8/-0.2	3.85±0.50

● Dimensions of outer carton box



Unit : mm

Size code	H	W, L
C	180	395
D, D8	220	395
F, G, G12, G16	180	395

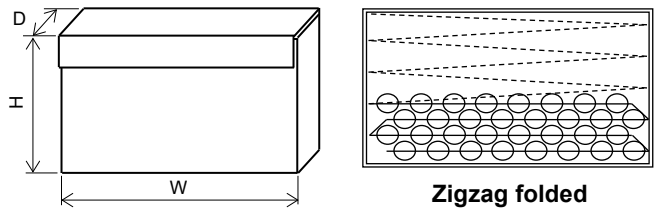
● Min.packing quantity

Size code	Min.packing quantity (pcs.)
C, D	1000
D8	900
F, G	500
G12	400
G16	250

Unit : mm

Size code	A	B	C	D	P	F	W
C	5.7	5.7	8.0	6.4	12.0	5.5	12.0
D	7.0	7.0	9.0	6.4	12.0	7.5	16.0
D8	7.0	7.0	9.0	8.4	12.0	7.5	16.0
F	8.7	8.7	12.5	11.0	16.0	11.5	24.0
G	10.7	10.7	14.5	11.0	16.0	11.5	24.0
G12	10.7	10.7	14.5	13.7	16.0	11.5	24.0
G16	10.7	10.7	14.5	17.5	20.0	11.5	24.0

● Dimensions of outer carton box / Packaging method



Unit : mm

Size code	W	H	D
F	340 max.	230 max.	55 max.
G	340 max.	170 max.	55 max.
G12	340 max.	170 max.	55 max.
G16	340 max.	170 max.	55 max.

● Min.packing quantity

Size code	Min.packing quantity (pcs.)
F	1000
G	500
G12	500
G16	500