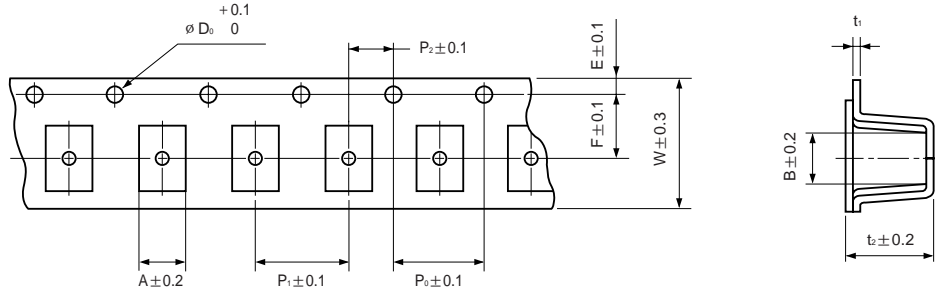


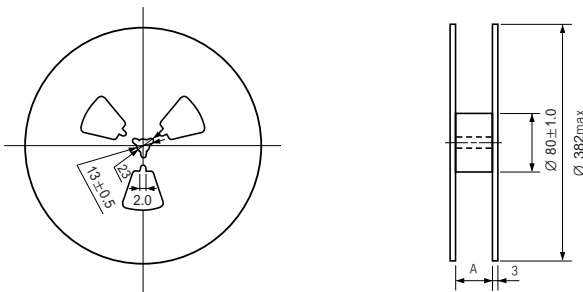
● Taping Specifications for SMD Type Polymer Capacitors (Vertical type)

● Carrier Tape



∅ D × L	A	B	∅ D ₀	E	F	P ₀	P ₁	P ₂	t ₁	t ₂	W
4 × 5.4	4.7	4.7	1.5	1.75	5.5	4	8	2	0.4	5.8	12
5 × 5.9	5.6	5.6	1.5	1.75	7.5	4	8	2	0.4	6.2	16
6.3 × 5.9	6.9	6.9	1.5	1.75	7.5	4	12	2	0.4	6.2	16
8 × 6.9	8.6	8.6	1.5	1.75	11.5	4	12	2	0.4	7.2	24
8 × 11.9	8.6	8.6	1.5	1.75	11.5	4	16	2	0.4	12.3	24
10 × 7.9	10.7	10.7	1.5	1.75	11.5	4	16	2	0.4	8.2	24
10 × 12.6	10.7	10.7	1.5	1.75	11.5	4	16	2	0.4	13	24

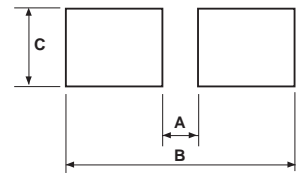
● Reel(Taping Code : VR)



∅ D × L	A
4 × 5.4	14
5 × 5.9	14
6.3 × 5.9	18
8 × 6.9	18
8 × 11.9	26
10 × 7.9	26
10 × 12.6	26

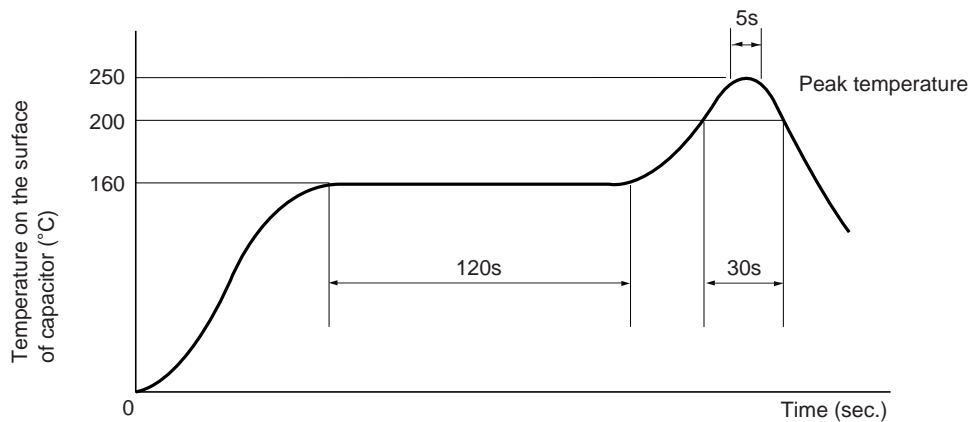
∅ D × L	Q'ty/Reel(pcs)	Q'ty/Box(pcs)
4 × 5.4	2000	20000
5 × 5.9	1000	10000
6.3 × 5.9	1000	10000
8 × 6.9	1000	10000
8 × 11.9	400	4000
10 × 7.9	500	5000
10 × 12.6	400	4000

● Recommended Land Size



∅ D × L	A	B	C
4 × 5.4	1.0	6.2	1.6
5 × 5.9	1.4	7.4	1.6
6.3 × 5.9	2.1	9.1	1.6
8 × 6.9	2.8	11.1	1.9
10 × 7.9	4.3	13.1	1.9
8 × 11.9	2.8	11.1	1.9
10 × 12.6	4.3	13.1	1.9

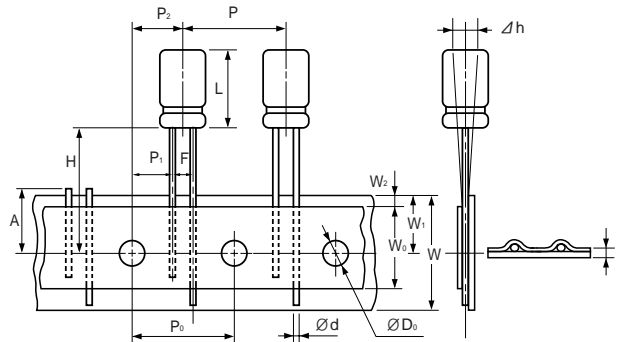
● Recommendable reflow soldering temperature



CONDUCTIVE POLYMER ALUMINUM ELECTROLYTIC CAPACITORS

● Taping Specifications for Lead Type Polymer Capacitors

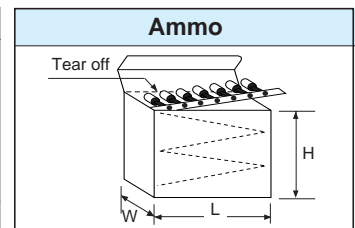
DRAWING I



Applicable Drawing No.			I				
Description	Symbol	Tolerance	ø 6.3	ø 8		ø 10	
Body Height	L	+ 1	6	7	12	8	13
Lead Dia.	ø d	±0.05	0.45	0.45	0.60	0.5	0.6
Body Pitch	P	±1.0	12.7				
Feeding Hole Pitch	P ₀	±0.2	12.7				
Feeding Hole Alignment	P ₁	±0.7	5.1			3.85	
Feeding Hole Alignment	P ₂	±1.0	6.35				
Lead Center Spacing	F	+0.6/-0.2	2.5	3.5		5.0	
Body Inclination	Δh	±2.0	0				
Tape Width	W	±0.5	18.0				
Adhesive Tape Width	W ₀	min.	7.0				
Feeding Hole Alignment	W ₁	±0.5	9.0				
Adhesive Tape Margin	W ₂	max.	2.0				
Length from Seating Plane	H	±0.5	17.5	20		18.5	
Feeding Hole Dia.	ø D ₀	±0.2	4.0				
Total Tape Thickness	t	±0.2	0.7				
Cut Lead Height	A	max.	11.0				
Taping Code	Ammo	⊕ leader	PC	PF		PA	

● PACKAGING Q'ty(pcs.) / BOX

Size		Ammo			
ø D	Case Height	L	H	W	Q'ty
6.3	6	332	230	42	1500
8	7	332	230	42	1000
	12	332	230	49	1000
10	8	332	190	51	500
	13	332	190	51	500



● BULK PACKING QUANTITY(PCS) / BOX

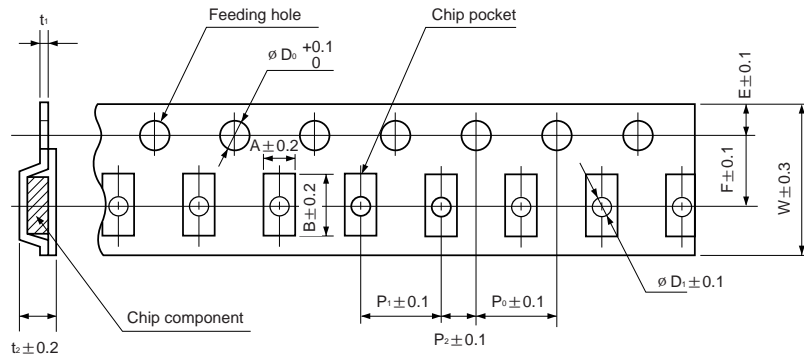
Size		V-BAG	INNER BOX	MIDDLE BOX
D	L			
6.3	6	500	6000	24000
8	7	500	5000	20000
	12	300	3600	14400
10	8	200	2400	9600
	13	200	2400	9600

● CUTTING PACKING QUANTITY(PCS) / BOX

Size		V-BAG	INNER BOX	MIDDLE BOX
D	L			
6.3	6	500	6000	24000
8	7	500	5000	20000
	12	300	3600	14400
10	8	200	2400	9600
	13	200	2400	9600

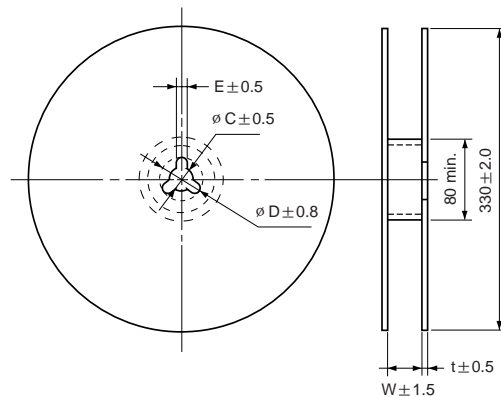
● Taping Specifications for SMD type Polymer Capacitors (Horizontal type)

● Carrier Tape



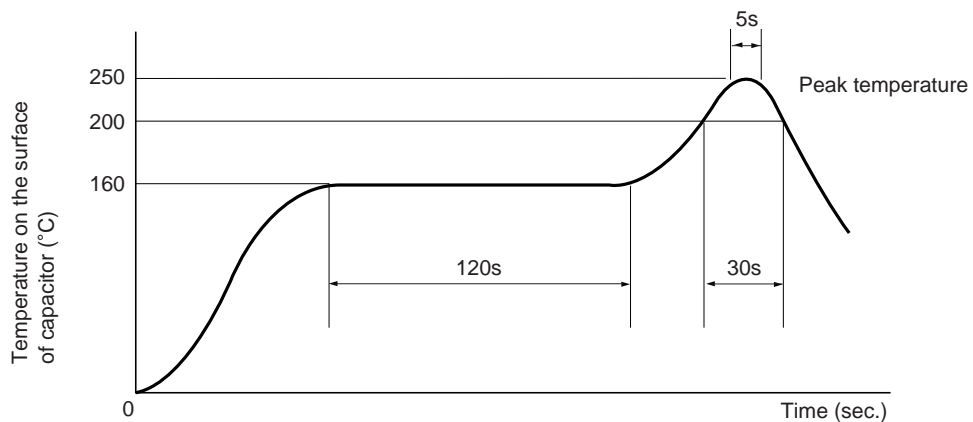
A	B	Ø D ₀	Ø D ₁	E	F	P ₀	P ₁	P ₂	t ₁	t ₂	W
4.7	7.7	1.5	1.6	1.75	5.5	4.0	8.0	2.0	0.3	2.2	12.0

● Packaging Specifications



Ø C	Ø D	E	W	t	Q'ty / Reel
13.0	21.0	2.0	14.0	2.0	3000 pcs.

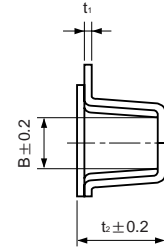
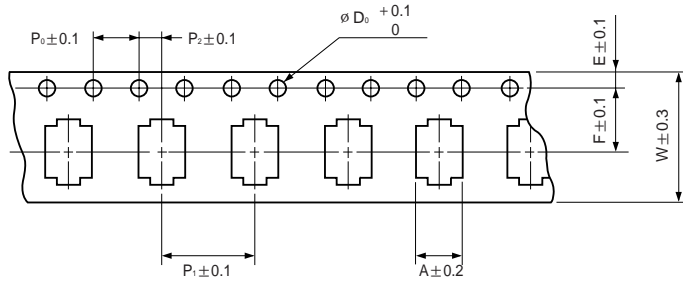
● Recommendable reflow soldering temperature



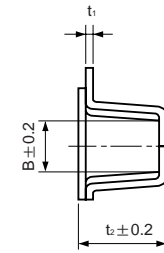
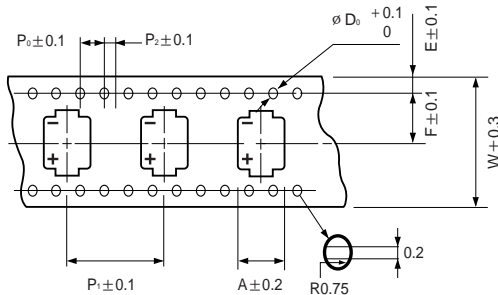
● **Taping Specifications for Chip Type Capacitors**

● **Carrier Tape**

• **Fig.1**



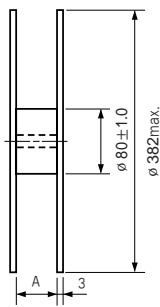
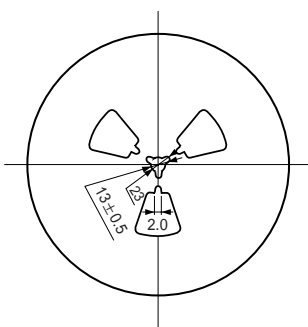
• **Fig.2**



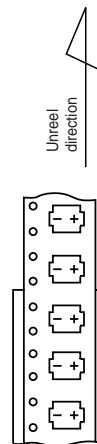
φD×L	A	B	φD ₀	E	F	P ₀	P ₁	P ₂	t ₁	t ₂	W	Fig.
4×5.3	4.7	4.7	1.5	1.75	5.5	4.0	8.0	2.0	0.4	5.7	12.0	1
4×5.8	4.7	4.7	1.5	1.75	5.5	4.0	8.0	2.0	0.4	6.3	12.0	
5×5.3	5.7	5.7	1.5	1.75	5.5	4.0	12.0	2.0	0.4	5.7	12.0	
5×5.8	5.7	5.7	1.5	1.75	5.5	4.0	12.0	2.0	0.4	6.3	12.0	
6.3×5.3	7.0	7.0	1.5	1.75	7.5	4.0	12.0	2.0	0.4	5.7	16.0	
6.3×5.8	7.0	7.0	1.5	1.75	7.5	4.0	12.0	2.0	0.4	6.3	16.0	
6.3×7.7	7.0	7.0	1.5	1.75	7.5	4.0	12.0	2.0	0.4	8.2	16.0	
8×6.2	8.7	8.7	1.5	1.75	7.5	4.0	12.0	2.0	0.4	6.8	16.0	
8×10	8.7	8.7	1.5	1.75	11.5	4.0	16.0	2.0	0.4	11.0	24.0	
10×10	10.7	10.7	1.5	1.75	11.5	4.0	16.0	2.0	0.4	11.0	24.0	
12.5×13.5	14.0	14.0	1.5	1.75	14.2	4.2	24.0	2.0	0.4	14.0	32.0	

CHIP TYPES

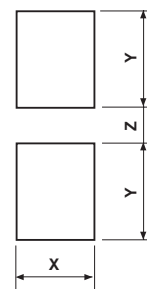
● **Reel (Taping code : VR)**



● **Polarity**



● **Recommended Land Size**



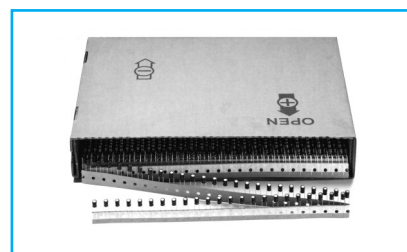
φD×L	A
4×5.3	14
4×5.8	14
5×5.3	14
5×5.8	14
6.3×5.3	18
6.3×5.8	18
6.3×7.7	18
8×6.2	18
8×10	26
10×10	26
12.5×13.5	34

φD×L	Q'ty/Reel(pcs.)	Q'ty/Box(pcs.)
4×5.3	2000	20000
4×5.8	2000	20000
5×5.3	1000	10000
5×5.8	1000	10000
6.3×5.3	1000	10000
6.3×5.8	1000	10000
6.3×7.7	900	9000
8×6.2	1000	10000
8×10	500	3000
10×10	500	3000
12.5×13.5	200	1000

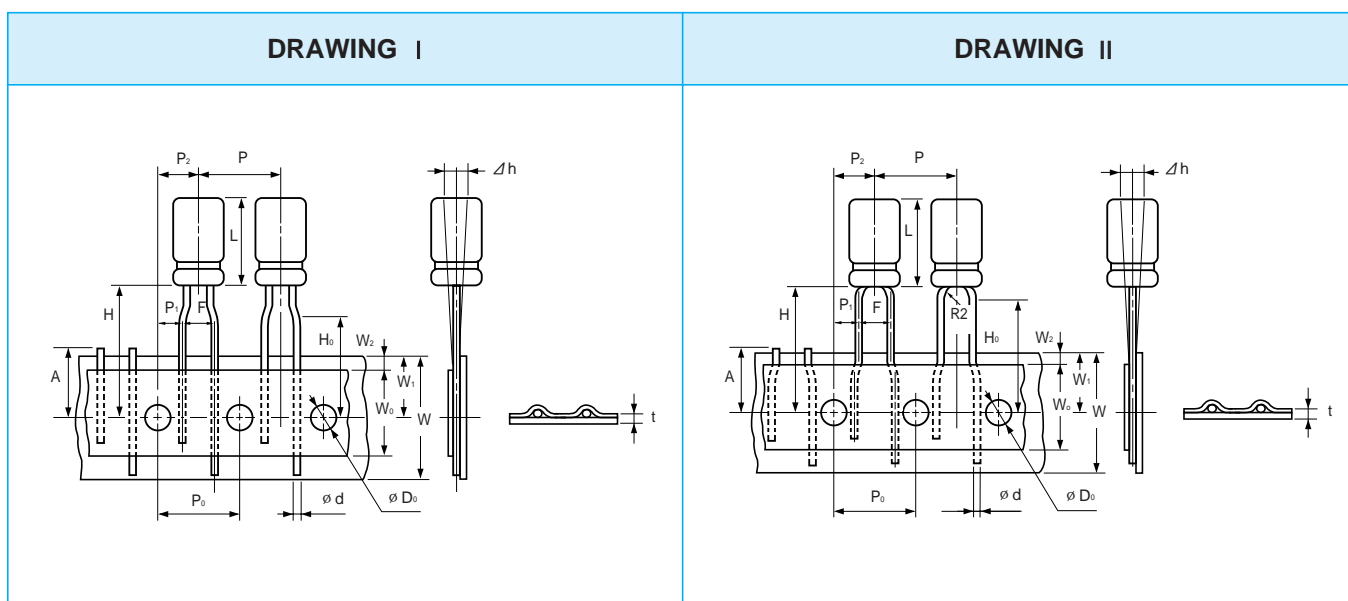
φD×L	X	Y	Z
4×5.3	1.6	2.6	1.0
4×5.8	1.6	2.6	1.0
5×5.3	1.6	3.0	1.4
5×5.8	1.6	3.0	1.4
6.3×5.3	1.6	3.5	2.0
6.3×5.8	1.6	3.5	2.0
6.3×7.7	1.6	3.5	2.0
8×6.2	2.5	4.0	2.0
8×10	2.5	3.5	3.0
10×10	2.5	4.0	4.0
12.5×13.5	4.0	7.5	7.0

TAPING

● Ammo



● Lead Taping Capacitors for Automatic Insertion



● DIMENSIONS

Unit : mm

Applicable Drawing No.			I (II)				III			I						
Description	Symbol	Tolerance	ø 3	ø 4	ø 5	ø 6.3	ø 8	ø 4	ø 5	ø 6.3	ø 8	ø 4	ø 5	ø 6.3	ø 8	
Case Height	L	*Note	5	5, 7	5	7~11	5	7~11	5	5, 7	5	7~11	5	7~11	5	9, 11.5
Lead Dia.	d	±0.05	0.4	0.45	0.45	0.5	0.45	0.5	0.45	0.45	0.45	0.5	0.45	0.5	0.45	0.6
Body Pitch	P	±1.0	12.7		12.7		12.7	12.7			12.7		12.7	12.7		
Feeding Hole Pitch	P ₀	±0.2	12.7		12.7		12.7	12.7			12.7		12.7	12.7		
Feeding Hole Alignment	P ₁	±0.7	5.1		5.1		5.1	3.85			3.85		3.85	3.85		
Feeding Hole Alignment	P ₂	±1.0	6.35		6.35		6.35	6.35			6.35		6.35	6.35		
Lead Center Spacing	F	+0.6 -0.2	2.5		2.5		2.5	5.0			5.0		5.0	5.0		
Body Inclination	Δh	±2.0	0		0		0	0			0		0	0		
Tape Width	W	±0.5	18.0		18.0		18.0	18.0			18.0		18.0	18.0		
Adhesive Tape Width	W ₀	min.	7.0		7.0		7.0	7.0			7.0		7.0	7.0		
Feeding Hole Alignment	W ₁	±0.5	9.0		9.0		9.0	9.0			9.0		9.0	9.0		
Adhesive Tape Margin	W ₂	max.	2.0		2.0		2.0	2.0			2.0		2.0	2.0		
Length from Seating Plane	H	±0.5	17.5 (18.0)		17.5		18.5	18.5 (5, 7mmL = 17.5)			17.5		20.0	17.5		
Lead Clinch Height	H ₀	±0.5	16.5 (17.0)		—		—	16.5			16.5		16.5	16.5		
Feeding Hole Dia.	øD ₀	±0.2	4.0		4.0		4.0	4.0			4.0		4.0	4.0		
Total Tape Thickness	t	±0.2	0.6		0.6		0.6	0.6			0.6		0.6	0.6		
Cut Lead Height	A	max.	11.0		11.0		11.0	11.0			11.0		11.0	11.0		
Taping Code	Ammo	⊕ leader	PB(PC)		PC	PE	PA			PA		PG	PG			

* Note : Refer to the drawing of each series for tolerance.

PACKING

● BULK PACKING QUANTITY(pcs) / BOX

SIZE		BULK (QUANTITY)		
∅ D	L	V-Bag	INNER BOX	MIDDLE BOX
3	5	500	12000	48000
4	5, 7	500	10000	40000
5	5, 7, 9, 11	500	7000	28000
6.3	5, 7, 9, 11	500	6000	24000
8	5	500	5000	20000
	9, 11.5	300	3600	14400
10	9, 12.5	200	2400	9600
	16	200	2000	8000
	20, 25	200	1600	6400
12.5	16	100	1200	4800
	20	100	1000	4000
	25	100	900	3600
16	16	100	800	3200
	20	50	600	2400
	25	50	500	2000
	31.5, 35.5	50	400	1600
18	16	50	600	2400
	20	50	500	2000
	20, 25(31.5)	50	400	1600
	35.5	50	300	1200

● CUTTING PACKING QUANTITY(pcs) / BOX

SIZE		CUTTING (QUANTITY)		
∅ D	L	V-Bag	INNER BOX	MIDDLE BOX
4	5, 7	500	9000	36000
5	5, 7, 9, 11	500	7000	28000
6.3	5, 7, 9, 11	500	6000	24000
8	5	500	5000	20000
	9, 11.5	300	3600	14000
10	9		1000	8000(16000)
	12.5		800	6400(12800)
	16		700	5600(11200)
	20		500	4000(8000)
	25		400	3200(6400)
12.5	16		400	3200(6400)
	20		300	2400(4800)
	25		250	2000(4000)
16	16		400	1200
	20		400	1200
	25, 31.5		400	1200
	35.5		400	1200
	40mm 이상		400	900
18	16		300	900
	20		300	900
	25		300	900
	31.5, 35.5		300	900
	40mm 이상		300	900
22	35.5 이하		200	600
	40mm 이상		200	600
25.4	35.5 이하		100	300
	40mm 이상		100	300

*() is for oversea

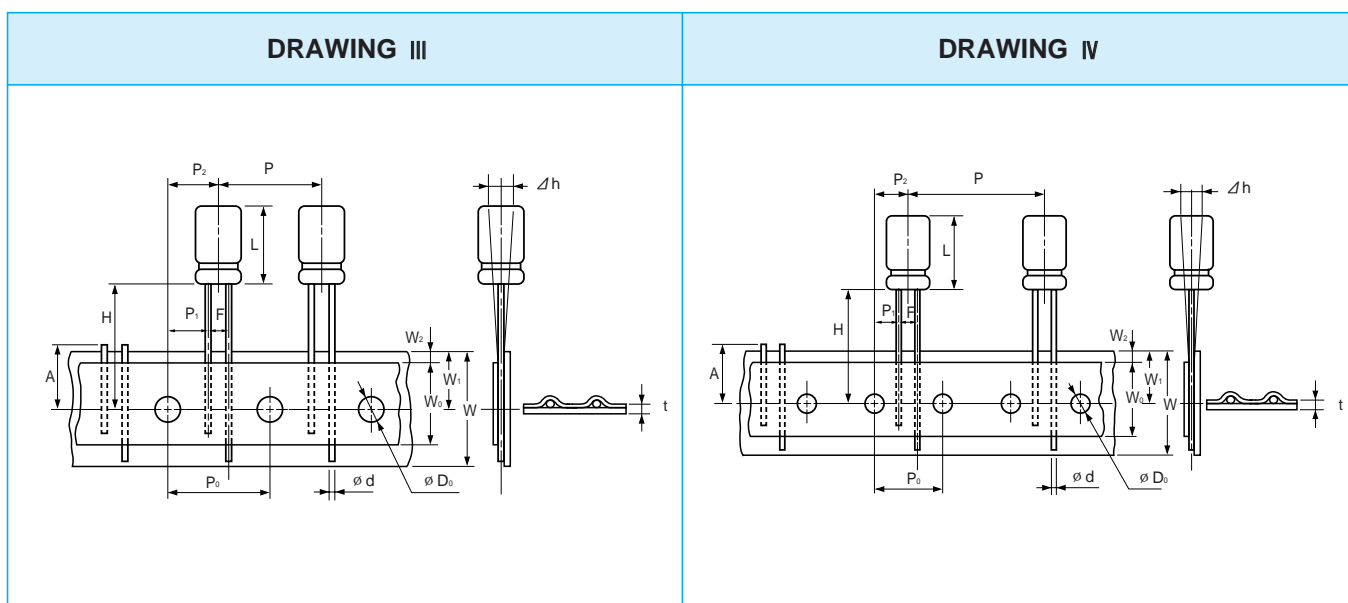
● Lead Forming & Cutting

Unit : mm

Configurations	Code	Case dia.	Shape	Configurations	Code	Case dia.	Shape
T - Type	TS	∅ D ≤ 8		S - Type	SS	∅ D ≥ 10	

TAPING

● Lead Taping Capacitors for Automatic Insertion



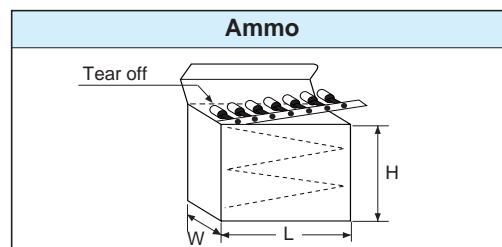
● DIMENSIONS

Unit : mm

Applicable Drawing No.			III	III	IV	IV	IV
Description	Symbol	Tolerance	∅ 10	∅ 12.5	∅ 16	∅ 18	∅ 18
Case Height	L	max.	27.0	27.0	37.5	37.5	
Lead Dia.	d	±0.05	0.6	0.6	0.8	0.8	
Body Pitch	P	±1.0	12.7	15.0	25.4	30.0	30.0
Feeding Hole Pitch	P ₀	±0.2	12.7	15.0	12.7	15.0	15.0
Feeding Hole Alignment	P ₁	±0.7	3.85	5.0	3.85	3.75	3.75
Feeding Hole Alignment	P ₂	±1.0	6.35	7.5	6.35	7.5	7.5
Lead Center Spacing	F	+0.6 -0.2	5.0	5.0	7.5	7.5	
Body Inclination	Δh	±2.0	0	0	0	0	
Tape Width	W	±0.5	18.0	18.0	18.0	18.0	
Adhesive Tape Width	W ₀	min.	7.0	12.5	12.5	12.5	
Feeding Hole Alignment	W ₁	±0.5	9.0	9.0	9.0	9.0	
Adhesive Tape Margin	W ₂	max.	2.0	2.0	2.0	2.0	
Length from Seating Plane	H	±0.5	18.5	18.5	18.5	18.5	
Feeding Hole Dia.	∅ D ₀	±0.2	4.0	4.0	4.0	4.0	
Total Tape Thickness	t	±0.2	0.6	0.6	0.6	0.6	
Cut Lead Height	A	max.	11.0	11.0	11.0	11.0	
Taping Code	Ammo	⊕ leader	PA	PH	PL	PA	PA

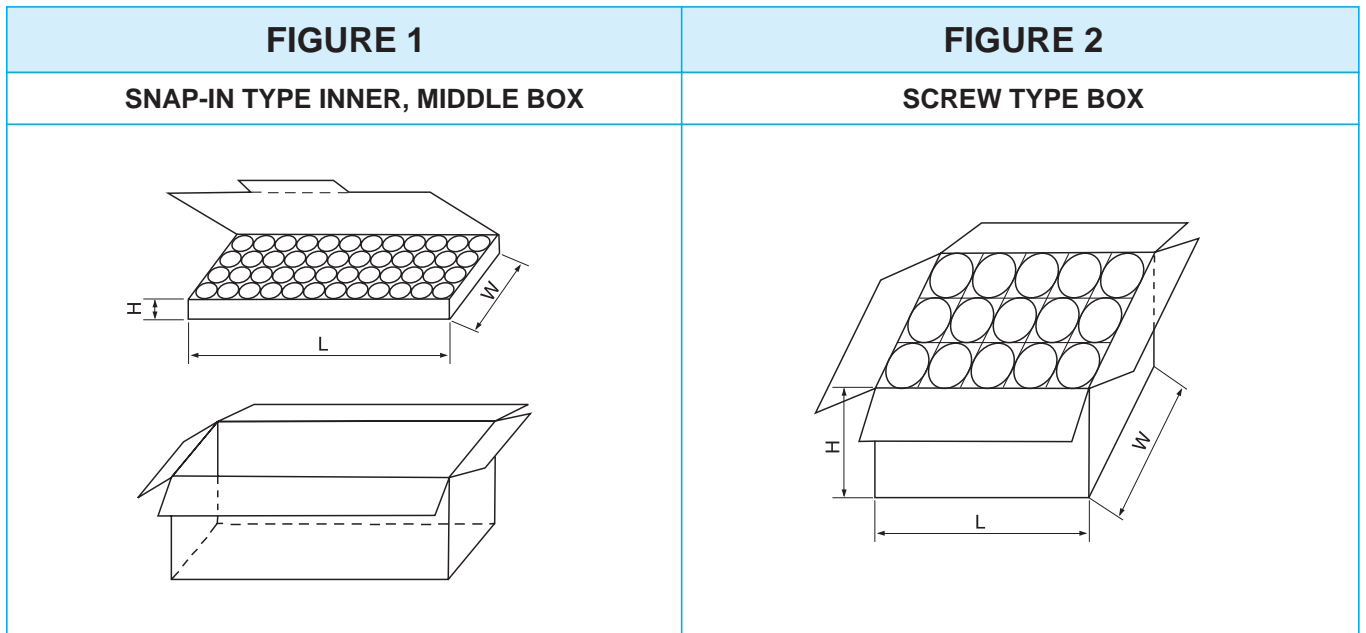
● PACKAGING Q'ty(pcs.)/Box

Unit : mm



Size		Ammo			
∅ D	Case Height	L	H	W	Q'ty
3	5	332	230	42	3000
4	5, 7				2500
5	5, 7	332	230	49	2000
	9, 11				
6.3	5, 7	332	230	42	1500
	9, 11				
8	5	332	230	42	1000
	9, 11.5				
10	9, 12.5, 16	332	190	51	500
	20, 25				
12.5	16, 20, 25	342	240	62	400
16	16, 20, 25	342	240	62	250
	31.5, 35.5				
18	16, 20, 25	342	240	62	200
	31.5, 35.5				

PACKING



● SNAP-IN TYPE PACKAGING Quantity (pcs) / BOX (FIGURE 1)

SIZE		SNAP-IN(QUANTITY)	
∅ D	L	INNER BOX	MIDDLE BOX
20	20 ~ 50	230	690
22	20 ~ 50	200	600
25	20 ~ 50	150	450
	60 ~		300
30	20 ~ 55	100	300
	60 ~		200
35	20 ~ 55	70	210
	60 ~		140
40	20 ~ 55	55	165
	60 ~		110

● SCREW TYPE PACKAGING Quantity (pcs) / BOX & BOX SIZE (FIGURE 2)

SIZE		SCREW
∅ D	L	QUANTITY
35	50 ~ 100	60
	105 ~ 120	60
51	60 ~ 100	30
	105 ~ 125	30
	130 ~ 140	30
64	60 ~ 100	25
	105 ~ 125	25
	130 ~ 160	25
76	80 ~ 100	16
	105 ~ 125	16
	130 ~ 160	16
89	140 ~ 160	9