

TAPING SPECIFICATIONS (Applicable standard JIS C 0806-3)  
SURFACE MOUNT TYPE (TAPING)



◆CARRIER TAPE [mm]

Fig.1

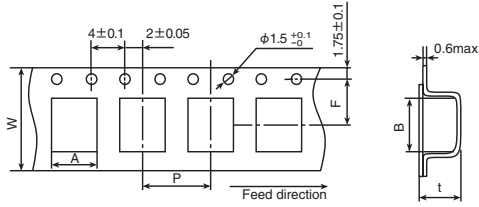


Fig.4

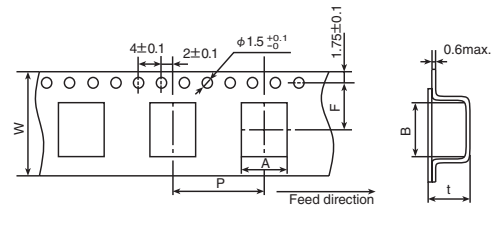


Fig.2

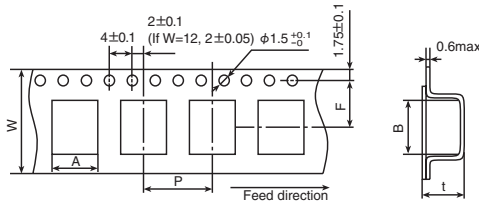


Fig.5

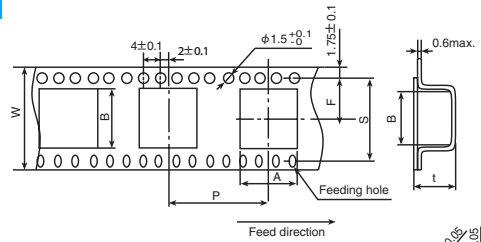
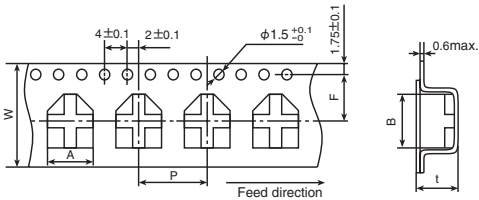


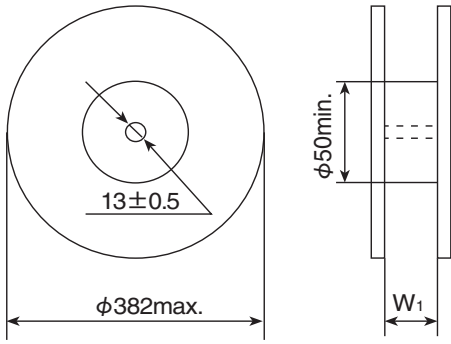
Fig.3



[mm]

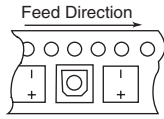
Series	Items	W	A	B	F	P	t	S	Fig.
		±0.3	±0.2	±0.2	±0.1	±0.1	±0.2	±0.1	
Alchip™ MVA/MVE MZR/MZJ MZA/MVY MZF/MZE MZK/MLA MLF/MLE MLK/MVL MVJ/MHS MVH/MHL MHB/MHJ MHK/MKB	D55	12.0	4.7	4.7	5.5	8.0	5.7	—	1
	D60,D61	12.0	4.7	4.7	5.5	8.0	6.3	—	1
	D73	12.0	4.6	4.6	5.5	8.0	7.5	—	1
	E40	12.0	5.7	5.7	5.5	12.0	4.4	—	2
	E46	12.0	5.7	5.7	5.5	12.0	4.9	—	2
	E55	12.0	5.7	5.7	5.5	12.0	5.7	—	2
	E60,E61	12.0	5.7	5.7	5.5	12.0	6.3	—	2
	E73	16.0	5.7	5.7	7.5	12.0	7.5	—	2
	F30	16.0	7.5	8.0	7.5	12.0	3.7	—	3
	F45,F46	16.0	7.0	7.0	7.5	12.0	4.9	—	2
	F55	16.0	7.0	7.0	7.5	12.0	5.7	—	2
	F60,F61	16.0	7.0	7.0	7.5	12.0	6.3	—	2
	F73	16.0	7.0	7.0	7.5	12.0	7.5	—	2
	F80	16.0	7.0	7.0	7.5	12.0	8.2	—	2
	F90	16.0	7.0	7.0	7.5	12.0	9.2	—	2
	NPCAP™ PMA PXN/PXT PXJ/PXG PXK/PXS PXF/PXE PXA/PXD PXH	FA0	16.0	7.0	7.0	7.5	12.0	10.3	—
H63		16.0	8.7	8.7	7.5	12.0	6.8	—	2
H70		24.0	8.7	8.7	11.5	12.0	7.3	—	2
H80		24.0	8.7	8.7	11.5	12.0	8.3	—	2
HA0		24.0	8.7	8.7	11.5	16.0	11.0	—	4
HC0		24.0	8.7	8.7	11.5	16.0	12.7	—	4
J80		24.0	10.7	10.7	11.5	16.0	8.3	—	4
JA0		24.0	10.7	10.7	11.5	16.0	11.0	—	4
JC0		24.0	10.7	10.7	11.5	16.0	12.8	—	4
Hybrid HXE/HXC HXD/HXA HXB		KE0	32.0	13.4	13.4	14.2	24.0	14.0	28.4
	KG5	32.0	13.4	13.4	14.2	24.0	16.5	28.4	5
	KN0	32.0	13.4	13.4	14.2	24.0	22.1	28.4	5
	LH0	44.0	17.5	17.5	20.2	28.0	16.8	40.4	5
	LN0	44.0	17.5	17.5	20.2	28.0	22.1	40.4	5
	MH0	44.0	19.5	19.5	20.2	32.0	17.1	40.4	5
	MN0	44.0	19.5	19.5	20.2	32.0	22.1	40.4	5

◆ REEL DIMENSIONS [mm]



◆ POLARITY

- Alchip™ -MVA/MVE/MZR  
MZJ/MZA/MVY  
MZJ/MZA/MVY  
MZJ/MZA/MVY  
MLA/MLF/MLE  
MLK/MVL/MVJ  
MHS/MVH/MHL  
MHB/MHJ/MHK  
MKB
- NP CAP™ -PMA  
PXN/PXT/PXJ/PXG  
PXK/PXS/PXF/PXE  
PXA/PXD/PXH
- Hybrid -HXE/HXC/HXD  
HXA/HXB



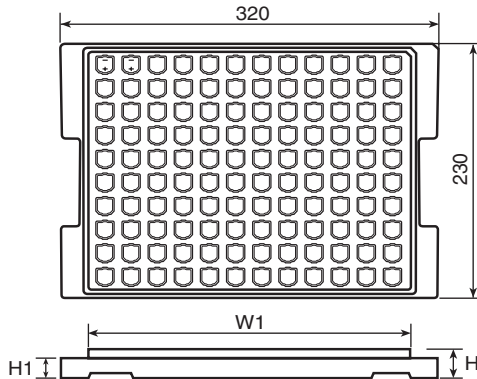
◆ QUANTITY PER REEL/BOX

Series	Size code	Quantity (pcs/reel)	Quantity (pcs/box)	W <sub>1</sub> (mm)
Alchip™	D55,D60,D61	2,000	10,000	14
	D73	1,500	7,500	14
	E55,E60,E61	1,000	5,000	14
	E73	1,000	5,000	18
	F55,F60,F61,F73	1,000	5,000	18
	F80	900	4,500	18
	F90	800	4,000	18
	H63	1,000	5,000	18
	HA0	500	1,500	26
	JA0	500	1,500	26
	KE0	250*1	750*1	34
	KG5	200*1	600*1	34
	KNO	150	450	34
Hybrid	LH0	175*1	350*1	46
	LN0	125*1	250*1	46
	MH0	150*1	300*1	46
	MNO	100*1	200*1	46
NPCAP™	E40,E46,E60,E61	1,000	10,000	14
	F35,F45,F46,F60,F61	1,000	7,000	18
	F80	900	6,300	18
	FA0	750	5,250	18
	H70	1,000	6,000	26
	H80	900	5,400	26
	HA0	500	3,000	26
	HC0	400	1,200	26
	J80	500	3,000	26
	JA0	500	3,000	26
JC0	400	1,200	26	

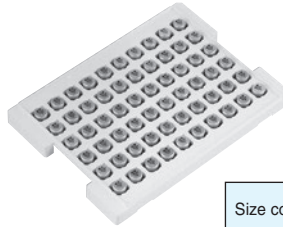
\*1 : Changed the packing quantity. (Size Code : KE0 to MNO)

SURFACE MOUNT TYPE (TRAY)

◆ DIMENSIONS [mm]



● TRAY CODE : TR

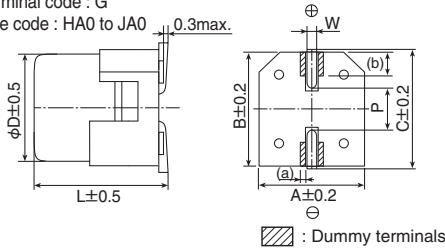


Size code	H [mm]	W <sub>1</sub> [mm]	H <sub>1</sub> [mm]	Quantity [pcs/tray]	Quantity [pcs/box]
KE0 & KG5	21.0	284	18.5	120	600
LH0 & LN0	28.0	284	24.0	80	400
MH0 & MN0	28.0	284	24.0	60	300

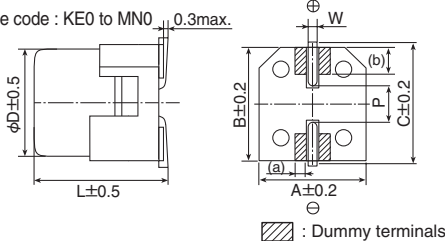
VIBRATION RESISTANT STRUCTURE (Terminal code : G)

◆ DIMENSIONS [mm]

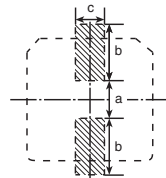
- Terminal code : G
- Size code : HA0 to JA0 0.3max.



- Size code : KE0 to MNO 0.3max.



◆ RECOMMENDED SOLDER LAND



▨ Solder land on PC board

The vibration resistant model supports the vibration condition of 30G. Since vibration is affected by solder thickness and other characteristics and conditions, please contact us for details.

Size code	Dimensions of products (mm)										Solder land (mm)		
	D	L	A	B	C	W	P	(a)	(b)	a	b	c	
HA0	8.0	10.0	8.3	8.3	9.0	0.7 to 1.1	3.1	(0.5)	(1.8)	3.1	4.2	3.5	
JA0	10.0	10.0	10.3	10.3	11.0	0.7 to 1.1	4.5	(0.5)	(2.1)	4.5	4.4	3.5	
KE0	12.5	13.5	13.0	13.0	13.7	1.0 to 1.3	4.2	(1.3)	(3.0)	3.4	6.3	9.3	
KG5	12.5	16.0	13.0	13.0	13.7	1.0 to 1.3	4.2	(1.3)	(3.0)	3.4	6.3	9.3	
KNO	12.5	21.5	13.0	13.0	13.7	1.0 to 1.3	4.2	(1.3)	(3.0)	3.4	6.3	9.3	
LH0	16.0	16.5	17.0	17.0	18.0	1.0 to 1.3	6.5	(2.0)	(3.0)	4.7	7.8	9.6	
LN0	16.0	21.5	17.0	17.0	18.0	1.0 to 1.3	6.5	(2.0)	(3.0)	4.7	7.8	9.6	
MH0	18.0	16.5	19.0	19.0	20.0	1.0 to 1.3	6.5	(2.0)	(4.0)	4.7	8.8	9.6	
MNO	18.0	21.5	19.0	19.0	20.0	1.0 to 1.3	6.5	(2.0)	(4.0)	4.7	8.8	9.6	

( ) : Ref.

# RADIAL LEAD TYPE TAPING SPECIFICATIONS (Applicable standard JIS C 0806-2)

## Conductive Polymer Aluminum Solid Capacitors Conductive Polymer Hybrid Aluminum Electrolytic Capacitors

### ◆ DIMENSION [mm]

Fig.1

Taping Code : TX  
φD=φ5

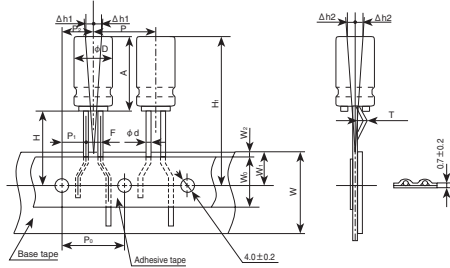
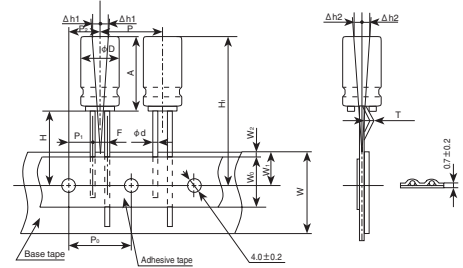


Fig.2

Taping Code : TD  
φD=φ6.3 to 10

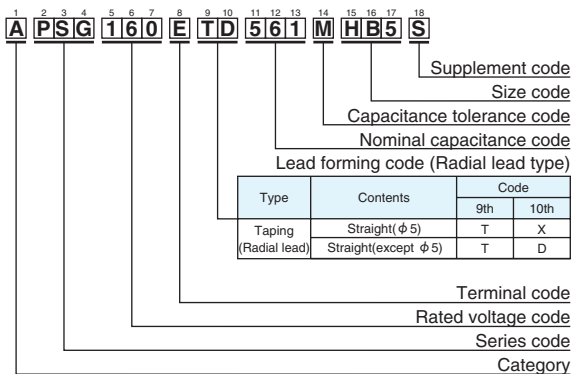


Code	Taping Code	Case size		φd	P	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>1</sub>	φD <sub>0</sub>	Δh <sub>1</sub>	Δh <sub>2</sub>	t	T	Fig
		φD	A																		
tol.	---	---	---	±0.05	±1.0	±0.2	±0.7	±1.0	$\pm 0.2$ $\pm 0.2$	±0.5	min.	±0.5	max.	±0.75	max.	±0.2	±0.2	±0.2	±0.3	±1.0	
Nominal	TX	5	8	0.45 <sup>*1</sup>	12.7	12.7	5.35	6.35	2.0 <sup>*2</sup>	18	10	9.0	2.5	18.5	28.25	4.0	0	0	0.7	0	1
		6.3	5	0.45	12.7	12.7	5.1	6.35	2.5	18	10	9.0	2.5	18.5	28.25	4.0	0	0	0.7	0	2
		6.3	8	0.6	12.7	12.7	5.1	6.35	2.5	18	10	9.0	2.5	18.5	28.75 <sup>*1</sup>	4.0	0	0	0.7	0	2
		6.3	10.5	0.5	12.7	12.7	5.1	6.35	2.5	18	10	9.0	2.5	18.5	30.05	4.0	0	0	0.7	0	2
		8	6	0.6	12.7	12.7	4.6	6.35	3.5	18	10	9.0	2.5	20.0	28.25 <sup>*1</sup>	4.0	0	0	0.7	0	2
	TD	8	8	0.6	12.7	12.7	4.6	6.35	3.5	18	10	9.0	2.5	20.0	29.75	4.0	0	0	0.7	0	2
		8	11.5	0.6 <sup>*1</sup>	12.7	12.7	4.6	6.35	3.5	18	10	9.0	2.5	20.0	33.75	4.0	0	0	0.7	0	2
		8	16	0.6	12.7	12.7	4.6	6.35	3.5	18	10	9.0	2.5	20.0	38.25	4.0	0	0	0.7	0	2
		8	20	0.6	12.7	12.7	4.6	6.35	3.5	18	10	9.0	2.5	20.0	42.25	4.0	0	0	0.7	0	2
		10	10.5	0.6	12.7	12.7	3.85	6.35	5.0	18	10	9.0	2.5	18.5	30.75	4.0	0	0	0.7	0	2
		10	11.5	0.6 <sup>*1</sup>	12.7	12.7	3.85	6.35	5.0	18	10	9.0	2.5	18.5	32.25	4.0	0	0	0.7	0	2
		10	12.5	0.6	12.7	12.7	3.85	6.35	5.0	18	10	9.0	2.5	18.5	33.25	4.0	0	0	0.7	0	2
		10	16	0.6	12.7	12.7	3.85	6.35	5.0	18	10	9.0	2.5	18.5	36.75	4.0	0	0	0.7	0	2
		10	20	0.6	12.7	12.7	3.85	6.35	5.0	18	10	9.0	2.5	18.5	40.75	4.0	0	0	0.7	0	2

\* 1 : Each product family has different value. Please refer to each page.  
\* 2 : For case size φ5×8 (Taping code : TX), H dimension shall be 2.0<sup>+0.5/-0.2</sup>.

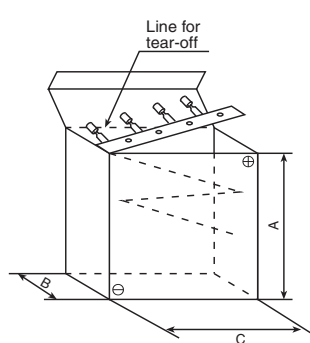
### TAPING CODE

#### Example



### QUANTITY PER AMMO PACK

#### Ammo pack box



#### Typical example

Case size φD×L(mm)	A (mm)	B (mm)	C (mm)	Quantity (pcs.)
φ5 L=8mm	240	51	336	2,000
L=5 & 8mm	285	51	336	
φ6.3 L=10.5mm	284	51	336	2,000
L=6 to 11.5mm	240	51	336	
φ8 L=16mm	240	56	336	1,000
	L=20mm	240	62	
φ10 L=10.5 to 12.5mm	190	51	337	500
	L=16mm	308	56	
L=20mm	308	62	337	800

RADIAL LEAD TYPE TAPING SPECIFICATIONS (Applicable standard JIS C 0806-2)

Aluminum Electrolytic Capacitors

◆ DIMENSION [mm]

Fig.1

Taping Code : TA, TC  
φD=φ4 to 8

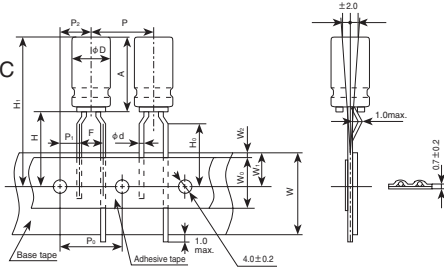


Fig.2

Taping Code : TD  
φD=φ5  
φD×L=φ4×7

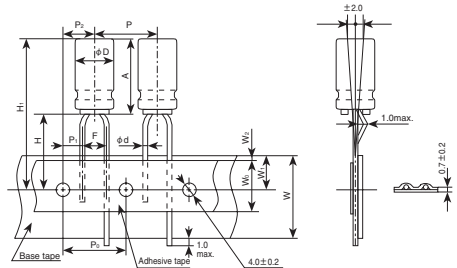


Fig.3

Taping Code : TD  
φD=φ6.3 to 12.5

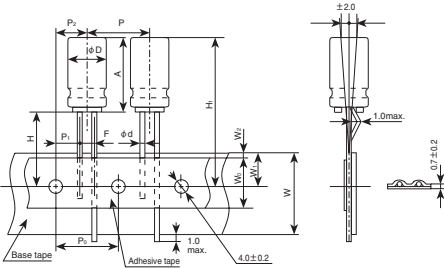
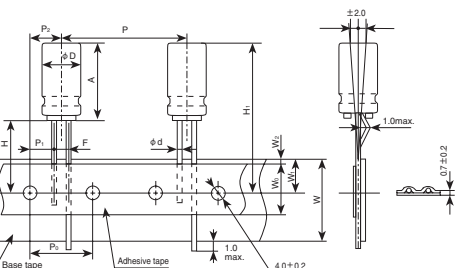


Fig.4

Taping Code : TE  
φD=φ12.5



Code	Taping Code	Case size		φd	P	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	F	W	W <sub>0</sub>	W <sub>1</sub>	W <sub>2</sub>	H	H <sub>0</sub>	H <sub>1</sub>	Fig	
		φD	A															
tol.		—	—	±0.05	±1.0	±0.2	±0.7	±1.0	±0.2	±0.5	min.	±0.5	max.	±0.75	±0.5			
Nominal	TA	4	5	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	17.5	16.0	Check insertion machine specs.	1	
	TC		7	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	18.5 <sup>2)</sup> 17.5	16.0		2	
	TD		11.5	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	10.0	9.0	1.5	17.5	16.0		1	
	TC		5 to 7	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	18.5	—		2	
	TD	5	11 to 15	0.5 <sup>2)</sup>	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	10.0	9.0	1.5	18.5	16.0		1	
	TC		5 to 7	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	18.5	16.0		3	
	TD	6.3	11 to 15	0.5	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	10.0	9.0	1.5	18.5	16.0		1	
	TC		5 to 7	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	17.5	16.0		3	
	TD	8	5	0.45	12.7	12.7	5.1 3.85	6.35	2.5 5	18.0	6.0	9.0	1.5	18.5	16.0		1	
	TC		11.5 to 20	0.6	12.7	12.7	4.6 3.85	6.35	3.5 5	18.0	10.0	9.0	1.5	20.0	16.0		3	
	TD																	1
	TE																	
tol.		±0.5	max.	±0.05	±1.0	±0.3	±0.7	±1.3	±0.2	±0.5	min.	±0.5	max.	±2.0	—			
Nominal	TD	10	21	0.6 <sup>2)</sup>	12.7	12.7	3.85	6.35	5	18.0	12.5	9.0	1.5	18.0	—		3	
	TD	12.5	26	0.6 <sup>2)</sup>	15	15	5.0	7.5	5	18.0	12.5	9.0	1.5	18.0	—		3	
	TE			0.6 <sup>2)</sup>	25.4	12.7	3.85	6.35	5	18.0	12.5	9.0	1.5	18.0	—		4	

\* 1 : Each product family has different value. Please refer to each page.

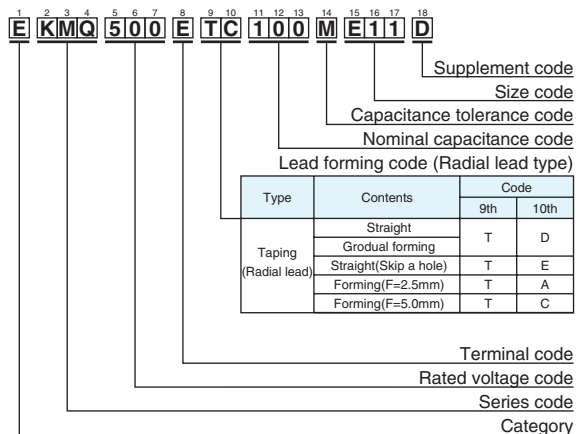
\* 2 : For case size φ4×7 (Taping code : TD), H dimension shall be 18.5<sup>-0.5/+0.75</sup>.

\* 3 : The taping for size φ16 and φ18 is available as a custom design.

\* 4 : For the Taping code TD products with case diameter ≥ 12.5mm, you can also select an option (Taping code: TS) that enhanced taping packaging.

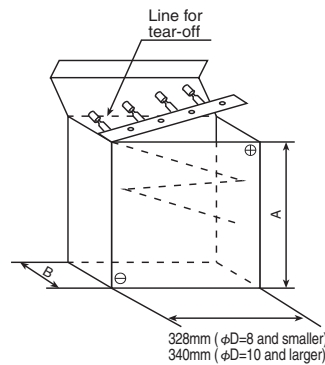
TAPING CODE

Example



QUANTITY PER AMMO PACK

Ammo pack box



Typical example

Case size φD×L(mm)	A (mm)	B (mm)	Quantity (pcs.)
φ4	L=5 & 7mm	183	42
	L=11.5mm	183	51
φ5	L=5 & 7mm	232	42
	L=11 to 15mm	232	51
φ6.3	L=11 to 15mm	284	51
	L=17mm	284	55
φ8	L=5mm	232	42
	L=17 & 20mm	235	60
φ10	L≤16mm	308	56
	L=17 to 20mm	308	62
	L=21 to 25mm	308	67
φ12.5	L=26 to 30mm	308	71
	L≤16mm	308	62
	L=17 to 25mm	308	67

## RADIAL LEAD TYPE (CUT/FORMED LEAD)

The following lead configurations are available. When ordering, please indicate the type of lead configurations by using the appropriate supplement code, such as C3, FC, MC or RC in the product part number.

Terminal type	Size	Terminal type	Size												
<p>●Lead code : FC (Forming Cut type)</p>	φD=5 to 8	<p>●Lead code : C3 (Cutting type)</p> <p>Dimension (C)</p> <ul style="list-style-type: none"> <li>• φD= 4 to 8: C3: 3.5±0.5(Second standard C5: 5.0±0.5)</li> <li>• φD=10 to 18: C3: 3.5±0.5(Second standard C5: 5.0<sup>+1.0</sup><sub>0</sub>)</li> </ul>	φD=4 to 18												
<p>●Lead code : FM (Snap-in type)</p>	φD=5 to 8	<p>●Lead code : MC (Snap-in type)</p>	φD=10 to 18												
<p>●Lead code : BC (Horizontal type)*3</p> <p>Dimension (P)</p> <ul style="list-style-type: none"> <li>• φ10, φ12.5 : P=5.0±0.5</li> <li>• φ14.5, φ16, φ18 : P=7.5±0.5</li> </ul>	φD=10 to 18	<p>●Lead code : BD (Horizontal type)*3</p> <p>Dimension (P)</p> <ul style="list-style-type: none"> <li>• φ10, φ12.5 : P=5.0±0.5</li> <li>• φ14.5, φ16, φ18 : P=7.5±0.5</li> </ul>	φD=10 to 18												
<p>●Lead code : IJ (Forming Cut type)</p> <p>Dimension</p> <table border="1"> <thead> <tr> <th>φD</th> <th>A · B</th> <th>φd</th> <th>P</th> </tr> </thead> <tbody> <tr> <td>10 to 12.5</td> <td>3.2±0.5</td> <td>0.6</td> <td>5.0±0.5</td> </tr> <tr> <td>14.5 to 18</td> <td>3.2±0.5</td> <td>0.8</td> <td>7.5±0.5</td> </tr> </tbody> </table>	φD	A · B	φd	P	10 to 12.5	3.2±0.5	0.6	5.0±0.5	14.5 to 18	3.2±0.5	0.8	7.5±0.5	φD=10 to 18	<p>*1 Please consult with us about other terminal forming.</p> <p>*2 Please refer to dimensions of each series for gas escape end seal style.</p> <p>*3 Conventionally, lead forming code is used in common by (BC) for two type of the lead bent directions. We added lead forming code (BD) newly and clarified the lead bent directions. Please place an order after the choice for an appropriate lead forming code depending on condition of use.</p>	
φD	A · B	φd	P												
10 to 12.5	3.2±0.5	0.6	5.0±0.5												
14.5 to 18	3.2±0.5	0.8	7.5±0.5												

### ◆DIMENSION (P) [mm]

Size	Lead forming	Cutting type		Snap-in type	
		FC	C3(C5)	FM	MC
φ4		—	1.5	—	—
φ5		5.0	2.0	5.0	—
φ6.3		5.0	2.5	5.0	—
φ8	5L	5.0	2.5	5.0	—
	11.5L min.	5.0	3.5	5.0	—
φ10		—	5.0	—	5.0
φ12.5		—	5.0	—	5.0
φ14.5		—	7.5	—	7.5
φ16		—	7.5	—	7.5
φ18		—	7.5	—	7.5

\*4 Please refer to dimensions of each series for lead-wire diameter (φd).

## MINIMUM ORDER QUANTITY

Please order by units of minimum order quantity.

### ◆SURFACE MOUNT

#### ●Vertical



Series	Size code	Quantity (pcs)	
		Taping	Tray (pcs/box)
Alchip™ MVA/MVE/MZR MZJ/MZA/MVY MZP/MZE/MZK MLA/MLF/MLE MLK/MVL/MVJ MHS/MVH/MHL MHB/MHJ/MHK MKB	D55, D60, D61	2,000	—
	D73	1,500	—
	E40, E46, E55, E60, E61, E73	1,000	—
	F30, F45, F46, F55, F60, F61, F73	1,000	—
	F80, H80	900	—
	F90	800	—
	FA0	750	—
	H63, H70	1,000	—
	HA0	500	—
	HCO	400	—
	J80, JA0	500	—
	JC0	400	—
	KE0	250*1	600
	KG5	200*1	600
NPCAP™ PMA PXN/PXT/PXJ PXG/PXK/PXS PXF/PXE/PXA PXD/PXH	KN0	150	—
	LH0	175*1	400
	LN0	125*1	400
	MH0	150*1	300
Hybrid HXE/HXC/HXD HXA/HXB	MN0	100*1	300

\*1 : Changed the packing quantity. (Size Code : KE0 to MN0)

### ◆RADIAL



Size	Bagged *2		Taping (pcs)	Tray (pcs) Cut type (C3, C5)	
	Long lead type (pcs/box)	Formed lead type *3 (pcs/box)			
φ 4	5L	2,000	3,000	2,000	—
	7L	2,000	2,000	2,000	—
φ 5	5L	2,000	3,000	2,000	—
	7L	1,000	2,000	2,000	—
	8L	1,000	1,000	2,000	—
	11 to 11.5L	3,000	1,000	2,000	—
φ 6.3	5L	2,000 (1,000) *4	2,000 (1,000) *4	2,000	—
	7 to 8L	1,000	1,000	2,000	—
	10.5 to 15L	2,000 (1,000) *4	1,000	2,000	—
φ 8	20L max.	1,000	1,000	1,000	—
φ 10	9L	2,000	3,000	800	1,500
	11.5L	500	500	500	—
	12.5L	2,000 (500) *4	3,000 (500) *4	800 (500) *4	1,500 (—) *4
	16 to 20L	2,000	2,000	800	1,500
	25L	1,000	2,000	800	1,500
	30 to 45L	1,000	1,000	—	750
φ 12.5	50L	500	1,000	—	—
	16L max.	1,000	2,000	500	1,500
	20 to 25L	1,000	1,000	500	1,500
	30L	1,000	1,000	—	750
	35 to 45L	500	500	—	750
φ 14.5	50L	500	500	—	—
	20L max.	500	1,000	250	500
	25L	500	500	250	500
	30 to 45L	500	500	—	500
φ 16	50L	250	250	—	—
	15L	500	1,000	250	500
	20 to 25L	500	500	250	500
	30 to 35.5L	500	500	—	500
	40L	250	500	—	500
	45L	250	500	—	—
φ 18	50L	250	250	—	—
	25L max.	500	500	250	500
	30 to 50L	250	250	—	500

\*2 The GVA, GPD and GVD series are not compatible with bagging. They are packaged in a box.

\*3 Standard bagged quantity. Please contact us for details.

\*4 Minimum order quantity for conductive polymer aluminum solid capacitors and conductive polymer hybrid aluminum electrolytic capacitors.

Series	Case size		Boxed (pcs) Long lead type
	φ D	L	
Aluminum Electrolytic Capacitors GVA/GPD/GVD	12.5	20 to 31.5	500
		35 to 40	
	14.5	20 to 31.5	300
		35 to 40	
	16	20 to 31.5	250
		35 to 40	
	18	20 to 31.5	200
		35 to 40	



### ◆SNAP-IN

200 pieces