Product code guide (Conductive polymer Surface mount type)
(Example : PXJ series, 6.3V-390 $\mu \mathrm{F}, \phi 6.3 \times 5.8 \mathrm{~L}$ )
Please refer to the following table



*Refer to the appendix (Part number) for codes not listed here.

## Product code guide (Conductive polymer Radial lead type)

(Example : PSK series, $6.3 \mathrm{~V}-330 \mu \mathrm{~F}, ~ \phi 5 \times 8 \mathrm{~L}$,Long Lead with bulk) Please refer to the following table



|  |  |
| :---: | :---: |
|  |  |
| Voltage(V) | Code |
| 2 | $2 R 0$ |
| 2.5 | 2 R 5 |
| 4 | 4 RO |
| 6.3 | 6 R 3 |
| 10 | 100 |
| 16 | 160 |
| 20 | 200 |
| 25 | 250 |
| 35 | 350 |



Product code guide (Conductive polymer hybrid Surface mount type) (Example : HXC series, $16 \mathrm{~V}-82 \mu \mathrm{~F}, \phi 6.3 \times 5.8 \mathrm{~L}$ )

Please refer to the following table

*Refer to the appendix (Part number) for codes not listed here

## Product code guide (Conductive polymer hybrid Radial lead type)

(Example : HSC series, $25 \mathrm{~V}-330 \mu \mathrm{~F}, \phi 10 \times 12.5 \mathrm{~L}$, Long Lead with bulk)
Please refer to the following table


## Product code guide (Surface mount type)

(Example : MVE series, $25 \mathrm{~V}-47 \mu \mathrm{~F}, \phi 6.3 \times 5.2 \mathrm{~L}$ )
Please refer to the following table


| Contents | Code |
| :---: | :---: |
| Polar | E |


| Series | Code |
| :---: | :---: |
| MVE | MVE |


| Type | Code |
| :---: | :---: |
| No dummy terminal | A |
| With dummy terminal | G |



| Voltage(V) | Code |
| :---: | :---: |
| 4 | 4 RO |
| 6.3 | 6 R 3 |
| 10 | 100 |
| 25 | 250 |
| 100 | 101 |
| $\vdots$ | $\vdots$ |


*Refer to the appendix (Part number) for codes not listed here.

## Product code guide (Radial lead type)

(Example : KMQ series, $100 \mathrm{~V}-100 \mu \mathrm{~F}, \boldsymbol{\phi} 10 \times 16 \mathrm{~L}$, Long lead with bulk)
Please refer to the following table

| Contents | Code |
| :---: | :---: |
| Polar | E |



| Type | Code |
| :---: | :---: |
| Radial lead | E |


| Tol.(\%) | Code |
| :---: | :---: |
| $\pm 20$ | M |
| -10 to +20 | V |


| Sleeve materia | Terminal plating <br> material | Code |
| :---: | :---: | :---: |
| PET | $\mathrm{Sn}-\mathrm{Bi}$ | D |
|  | Sn | S |
| Sleeveless <br> (Coating case) | $\mathrm{Sn}-\mathrm{Bi}$ | G |
|  | Sn | H |
| $\downarrow$ |  |  |



*Refer to the appendix (Part number) for codes not listed here.

## CUT/FORMED LEAD

| Terminal type | Terminal type | Terminal type |
| :---: | :---: | :---: |
| -Lead code : FC (Forming Cut type) Size : $\phi \mathrm{D}=5$ to 8 | -Lead code : C3 (Cutting type) Size : $\phi \mathrm{D}=5$ to 18 <br> Dimension (C) <br> - $\phi \mathrm{D}=5$ to $8: \mathrm{C} 3: 3.5 \pm 0.5($ Second standard C5: $5.0 \pm 0.5$ ) <br> - $\phi \mathrm{D}=10$ to $18: \mathrm{C} 3: 3.5 \pm 0.5$ (Second standard C5: $5.0_{-0}^{ \pm 1.0}$ ) | -Lead code : IJ (Forming Cut type) <br> Dimension |
| -Lead code : FM (Snap-in type) <br> Size : $\phi \mathrm{D}=5$ to 8 | -Lead code : MC (Snap-in type) Size : $\phi \mathrm{D}=10$ to 18 | *1 Please consult with us about other terminal forming. <br> *2 Please refer to dimensions of each series for gas escape end seal. <br> *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. |
| -Lead code : BC (Horizontal type)*3 Size : $\phi \mathrm{D}=10$ to 18 <br> Dimension (P) <br> - $\phi 10, \phi 12.5: P=5.0 \pm 0.5$ <br> - $\phi 14.5, \phi 16, \phi 18: P=7.5 \pm 0.5$ | -Lead code : BD (Horizontal type)*3 Size : $\phi \mathrm{D}=10$ to 18 <br> Dimension (P) <br> - $\phi 10, \phi 12.5: P=5.0 \pm 0.5$ <br> - $\phi 14.5, \phi 16, \phi 18: P=7.5 \pm 0.5$ |  |

## снемl-сол PART NUMBERING SYSTEM

## Product code guide (Snap-in type)

(Example : KMS series, $400 \mathrm{~V}-330 \mu \mathrm{~F}, \boldsymbol{\phi} 30 \times 30 \mathrm{~L}$ )
Please refer to the following table

| Contents | Code |
| :---: | :---: |
| Polar | E |


| Series | Code |
| :---: | :---: |
| KMS | KMS |



For more details, refer to Product Guide.

| Type | Code |
| :---: | :---: |
| Snap-in | VS |
| Snap-in | VN |
| Flat terminal for PCB | LI |
| For Connector | LR |
| Horizontal | LC |
| Straight | VR |
|  |  |


| Tol.(\%) | Code |
| :---: | :---: |
| $\pm 20$ | M |


| Sleeve material | Terminal plating <br> material | Code |
| :---: | :---: | :---: |
| PET | Sn | S |
|  |  | M |



| code |  |
| :---: | :---: |
| tol |  |
| Cap. $(\mu \mathrm{F})$ | Code |
| 39 | 390 |
| 47 | 470 |
| 100 | 101 |
| 470 | 471 |
| 1,000 | 102 |
| 4,700 | 472 |
| 10,000 | 103 |
| $\vdots$ | $\vdots$ |


| 个 |  | code |  |
| :---: | :---: | :---: | :---: |
| $\phi \mathrm{D}(\mathrm{mm})$ Code <br> 22 P <br> 25.4 Q <br> 30 R <br> 35 A <br> 40 B$\mathrm{L}(\mathrm{mm})$ Code <br> 20 20 <br> 25 25 <br> 30 30 <br> 35 35 <br> 40 40 <br> 45 45 <br> 50 50 <br> 55 55 <br> 60 60 |  |  |  |

*Refer to the appendix (Part number) for codes not listed here.


[^0]
## Product code guide (Screw mount terminal type)

(Example : KMH series, $400 \mathrm{~V}-3,300 \mu \mathrm{~F}, \phi 63.5 \times 120 \mathrm{~L}$, Without mounting clamp)
Please refer to the following table


Category


code



| Sleeve Material | Plastic disk | Code |
| :---: | :---: | :---: |
| PVC | Provided | U |



| $\uparrow$ |
| :---: | :---: |
| 个D(mm) Code <br> 35 A <br> 50 C <br> 63.5 D <br> 76.2 E <br> 89 F <br> 100 G |


| L(mm) | Code |
| :---: | :---: |
| 50 | 50 |
| 55 | 55 |
| 60 | 60 |
| 65 | 65 |
| 75 | 75 |
| 80 | 80 |
| 85 | 85 |
| 90 | 90 |
| 95 | 95 |
| 96 | 96 |
| 100 | A0 |
| 105 | A5 |
| 110 | B0 |
| 115 | B5 |
| 120 | C0 |
| 125 | C5 |
| 130 | D0 |
| 140 | E0 |
| 145 | E5 |
| 155 | F5 |
| 170 | H0 |
| 190 | K0 |
| 210 | M0 |
| 220 | N0 |
| 250 | R0 |
| 270 | T0 |

## Part numbering system

Our part numbering system is common to all of Nippon Chemi-Con's subsidiaries worldwide, and has been switching the conventional part numbering system. The part number uses 18-digit codes to express information of principal product specifications such as product category, series name, rated voltage, capacitance, case size and RoHS compliance.

## Categories



* For digits 2 to 18, please see "Product code guide".


## Oxample

| Product type | Part number (Example) | Conventional part number (Ref.) |
| :--- | :--- | :--- |
| Surface mount type | EMVE160ADA100MD55G | MVE16VC10MD55E0 |
| Radial lead type | EKMQ6R3ETC102MHB5D | TC04RKMQ6. 3VB1000MF50E0 |
| Snap-in type | EKMQ201VSN471MP30S | KMQ200VSSN470M22BE0 |
| Screw mount terminal type | ERWE551LGC821MCD0U | RWE550LGSN820MCC13EA |

## U37F series

Part Numbering System for U37F Series When ordering, always specify complete 18 -field global part number.

## 




## 9 Supplement Code. Field 18.

$\mathrm{U}=\mathrm{PVC}$ sleeve with end disk. Other sleeve material available as option upon request.
Case Size. Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.

$$
\begin{aligned}
& \mathrm{C}=\varnothing 50.8 \mathrm{~mm}(\varnothing 2.000 "), \\
& \mathrm{D}=\varnothing 63.5 \mathrm{~mm}(\varnothing 2.500 ") \\
& \mathrm{E}=\varnothing 76.2 \mathrm{~mm}\left(\varnothing 3.000{ }^{\prime \prime}\right) \\
& \mathrm{F}=\varnothing 89.0 \mathrm{~mm}(\varnothing 3.500 ")
\end{aligned}
$$

The double character length code is inserted in fields 16 and 17. For lengths $\leq 99 \mathrm{~mm}$, insert the actual length rounded to nearest millimeter. For lengths of 100 mm or more, insert the appropriate alpha numeric code as indicated below.
$92=92 \mathrm{~mm}(3.625 ")$
A5 $=105 \mathrm{~mm}(4.125 ")$
B7 $=117 \mathrm{~mm}$ (4.625")
D0 $=130 \mathrm{~mm}\left(5.125^{\prime \prime}\right)$
$\mathrm{E} 3=143 \mathrm{~mm}(5.625 ")$
F5 $=155 \mathrm{~mm}$ (6.125")
$\mathrm{J} 1=181 \mathrm{~mm}\left(7.125^{\prime \prime}\right)$
$K 0=190 \mathrm{~mm}(7.500 ")$
M9 = 219mm (8.625")
Capacitance Tolerance. Field 14.
$M= \pm 20 \%$
解 11,12 and 13 Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of $10 \mu \mathrm{~F}$ or more. R indicates the decimal point for capacitance less than $10 \mu \mathrm{~F}$ (e.g. $1 R 0=1.0 \mu \mathrm{~F} ; 100=10 \mu \mathrm{~F} ; 101=100 \mu \mathrm{~F}$; $102=1,000 \mu \mathrm{~F} ; 103=10,000 \mu \mathrm{~F})$.
Mounting Hardware. Field 10.
$\mathrm{N}=$ None.
C = Three-footed clamp.
$\mathrm{S}=$ Stud mount. The mounting nut is not included with stud mount orders. It must be ordered separately.
Terminal Type. Fields 8 and 9 .
HP = High post 10-32 NF-2B screw thread.
$\mathrm{HL}=$ High post M5x0.8 screw thread.
CD $=$ M5x0.8 screw thread.
$\mathrm{CP}=$ Low post $1 / 4-28 \mathrm{NF}-2 \mathrm{~B}$ screw thread.
$\mathrm{CH}=$ High post $1 / 4-28 \mathrm{NF}-2 \mathrm{~B}$ screw thread.
$\mathrm{CA}=$ Low post $\mathrm{M} 6 \times 1$ screw thread.
$\mathrm{CS}=$ High post $\mathrm{M} 6 \times 1$ screw thread.
3 DC Rated Voltage. Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. R indicates the decimal point for rated voltage less than 10 VDC (e.g. $4 R 0=4.0 \mathrm{VDC} ; 400=40 \mathrm{VDC} ; 401=400 \mathrm{VDC}$ ).

Enter the 3 -letter/digit series name in fields 2, 3 and 4 . If the series name is only 2 letters/digits, place a dash in field 4. For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3 -field series name.
Capacitor Type. Field 1.
Aluminum Electrolytic Capacitor (Polar).

Part Numbering System for U37L Series When ordering, always specify complete 18-field global part number.

## (1) 23 (3) (3) (7) 8 (1) (1) (1) (1) (13) (1) (1) (1) (1) (18)

E 37 L 401 CP C 332 MDA 5 U


9 Supplement Code. Field 18.
$\mathrm{U}=\mathrm{PVC}$ sleeve with end disk. Other sleeve material available as option upon request.
8 Case Size. Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.
$\mathrm{C}=\varnothing 50.8 \mathrm{~mm}(\varnothing 2.000$ ")
$\mathrm{D}=\varnothing 63.5 \mathrm{~mm}\left(\varnothing 2.500^{\prime \prime}\right)$
$\mathrm{E}=\varnothing 76.2 \mathrm{~mm}(\varnothing 3.000$ ")
$\mathrm{F}=\varnothing 89.0 \mathrm{~mm}(\varnothing 3.500$ ")
The double character length code is inserted in fields 16 and 17. For lengths $\leq 99 \mathrm{~mm}$, insert the actual length rounded to nearest millimeter. For lengths of 100 mm or more, insert the appropriate alpha numeric code as indicated below.
$92=92 \mathrm{~mm}\left(3.625^{\prime \prime}\right)$
$A 5=105 \mathrm{~mm}\left(4.125^{\prime \prime}\right)$
$B 7=117 \mathrm{~mm}\left(4.625^{\prime \prime}\right)$
D0 $=130 \mathrm{~mm}$ (5.125")
$E 3=143 \mathrm{~mm}\left(5.625^{\prime \prime}\right)$
F5 $=155 \mathrm{~mm}\left(6.125^{\prime \prime}\right)$
$\mathrm{J} 1=181 \mathrm{~mm}$ (7.125")
$K 0=190 \mathrm{~mm}(7.500 ")$
M9 = 219 mm (8.625")
Capacitance Tolerance. Field 14.
$M= \pm 20 \%$
Capacitance. Fields 11, 12 and 13.
Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of $10 \mu \mathrm{~F}$ or more. R indicates the decimal point for capacitance less than $10 \mu \mathrm{~F}$ (e.g. $3 \mathrm{R} 3=3.3 \mu \mathrm{~F} ; 330=33 \mu \mathrm{~F} ; 331=330 \mu \mathrm{~F}$; $332=3,300 \mu \mathrm{~F} ; 333=33,000 \mu \mathrm{~F})$.
. 10
$\mathrm{N}=$ None.
C = Three-footed clamp.
$\mathrm{S}=$ Stud mount. The mounting nut is not included with stud mount orders. It must be ordered separately.
4 Terminal Type. Fields 8 and 9
HP $=$ High post 10-32 NF-2B screw thread.
$\mathrm{HL}=$ High post M5x0.8 screw thread.
CD $=$ M5x0.8 screw thread.
$\mathrm{CP}=$ Low post $1 / 4-28 \mathrm{NF}-2 \mathrm{~B}$ screw thread.
$\mathrm{CH}=$ High post $1 / 4-28 \mathrm{NF}-2 \mathrm{~B}$ screw thread.
$\mathrm{CA}=$ Low post M6x1 screw thread.
CS = High post M6x1 screw thread.
DC Rated Voltage. Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. R indicates the decimal point for rated voltage less than 10 VDC (e.g. $4 \mathrm{RO}=4.0 \mathrm{VDC} ; 400=40 \mathrm{VDC} ; 401=400 \mathrm{VDC}$ ).

Enter the 3-letter/digit series name in fields 2, 3 and 4. If the series name is only 2 letters/digits, place a dash in field 4. For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3 -field series name.Capacitor Type. Field 1
Aluminum Electrolytic Capacitor (Polar).

## U37X serires

Part Numbering System for U37X Series When ordering, always specify complete 18 -field global part number.

## 



9 Supplement Code. Field 18.
U = PVC sleeve with end disk.
Other sleeve material available as option upon request.
8 Case Size. Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.
$\mathrm{C}=\varnothing 50.8 \mathrm{~mm}(\varnothing 2.000 ")$
$\mathrm{D}=\varnothing 63.5 \mathrm{~mm}(\varnothing 2.500 ")$
$\mathrm{E}=\varnothing 76.2 \mathrm{~mm}\left(\varnothing 3.000^{\prime \prime}\right)$
$\mathrm{F}=\varnothing 89.0 \mathrm{~mm}\left(\varnothing 3.500^{\prime \prime}\right)$

The double character length code is inserted in fields 16 and 17. For lengths $\leq 99 \mathrm{~mm}$, insert the actual length rounded to nearest millimeter. For lengths of 100 mm or more, insert the appropriate alpha numeric code as indicated below.
$92=92 \mathrm{~mm}\left(3.625^{\prime \prime}\right)$
$A 5=105 \mathrm{~mm}\left(4.125^{\prime \prime}\right)$
$B 7=117 \mathrm{~mm}\left(4.625^{\prime \prime}\right)$
D0 $=130 \mathrm{~mm}\left(5.125^{\prime \prime}\right)$
$\mathrm{E} 3=143 \mathrm{~mm}\left(5.625^{\prime \prime}\right)$
F5 $=155 \mathrm{~mm}\left(6.125^{\prime \prime}\right)$
$\mathrm{J} 1=181 \mathrm{~mm}$ (7.125")
$K 0=190 \mathrm{~mm}(7.500 ")$
M9 = 219 mm (8.625")
Capacitance Tolerance. Field 14.
$M= \pm 20 \%$
Capacitance. Fields 11, 12 and 13.
Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of $10 \mu \mathrm{~F}$ or more. R indicates the decimal point for capacitance less than $10 \mu \mathrm{~F}$ (e.g. $4 \mathrm{R} 7=4.7 \mu \mathrm{~F} ; 470=47 \mu \mathrm{~F} ; 471=470 \mu \mathrm{~F}$; $472=4,700 \mu \mathrm{~F} ; 473=47,000 \mu \mathrm{~F})$.
Mounting Hardware. Field 10.
$\mathrm{N}=$ None.
C = Three-footed clamp.
$\mathrm{S}=$ Stud mount. The mounting nut is not included with stud mount orders. It must be ordered separately.
Terminal Type. Fields 8 and 9.
HP = High post 10-32 NF-2B screw thread.
$\mathrm{HL}=$ High post M5x0.8 screw thread.
CD $=$ M5x0.8 screw thread.
$\mathrm{CP}=$ Low post $1 / 4-28 \mathrm{NF}-2 \mathrm{~B}$ screw thread.
$\mathrm{CH}=$ High post $1 / 4-28$ NF-2B screw thread .
$\mathrm{CA}=$ Low post M6x1 screw thread.
CS = High post M6x1 screw thread.
DC Rated Voltage. Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. R indicates the decimal point for rated voltage less than 10 VDC (e.g. $4 R 0=4.0 \mathrm{VDC} ; 400=40 \mathrm{VDC} ; 401=400 \mathrm{VDC}$ ).

Enter the 3-letter/digit series name in fields 2,3 and 4. If the series name is only 2 letters/digits, place a dash in field 4. For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3 -field series name.
Capacitor Type. Field 1
Aluminum Electrolytic Capacitor (Polar).

## UTOR $_{\text {serres }}$

Part Numbering System for UTOR Series When ordering, always specify complete 18 -field global part number.

## 

ETOR401 CTN 3 9 2 MEA5


9 Supplement Code. Field 18. $\mathrm{M}=\mathrm{PVC}$ sleeve with end disk. $C=P E T$ sleeve with end disk.

Case Size. Fields 15, 16 and 17.
The single letter diameter code is inserted in field 15.

$$
\mathrm{E}=\varnothing 76.2 \mathrm{~mm}\left(\varnothing 3.000^{\prime \prime}\right)
$$

The double character length code is inserted in fields 16 and 17. For lengths $\leq 99 \mathrm{~mm}$, insert the actual length rounded to nearest millimeter. For lengths of 100 mm or more, insert the appropriate alpha numeric code as indicated below.
$54=54 \mathrm{~mm}(2.125 ")$
$67=67 \mathrm{~mm}(2.625$ ")
$79=79 \mathrm{~mm}(3.125$ ")
$92=92 \mathrm{~mm}\left(3.625{ }^{\prime \prime}\right)$
$\mathrm{A} 5=105 \mathrm{~mm}\left(4.125^{\prime \prime}\right)$
$\mathrm{B} 7=117 \mathrm{~mm}\left(4.625^{\prime \prime}\right)$
$D 0=130 \mathrm{~mm}\left(5.125^{\prime \prime}\right)$
$\mathrm{E} 3=143 \mathrm{~mm}\left(5.625^{\prime \prime}\right)$
$\mathrm{F} 5=155 \mathrm{~mm}$ (6.125")
$\mathrm{G} 8=168 \mathrm{~mm}$ (6.625")Capacitance Tolerance. Field 14.

## $M= \pm 20 \%$

Capacitance. Fields 11, 12 and 13.
Expressed in Microfarads. The first two digits are significant figures inserted in fields 11 and 12, and the third digit inserted in field 13 indicates the number of zeros for capacitance of $10 \mu \mathrm{~F}$ or more. R indicates the decimal point for capacitance less than $10 \mu \mathrm{~F}$ (e.g. $3 \mathrm{R} 9=3.9 \mu \mathrm{~F} ; 390=39 \mu \mathrm{~F} ; 391=390 \mu \mathrm{~F}$; $392=3,900 \mu \mathrm{~F} ; 393=39,000 \mu \mathrm{~F})$.
ware. Field 10
N = None.
C = Three-footed clamp.
$\mathrm{H}=$ Heat sink kit.
4 Terminal Type. Fields 8 and 9.
CT = M5x0.8 screw thread.
3 DC Rated Voltage. Fields 5, 6 and 7.
Expressed in Volts. The first two digits are significant figures inserted in fields 5 and 6, and the third digit inserted in field 7 indicates the number of zeros for rated voltage of 10VDC or more. $R$ indicates the decimal point for rated voltage less than 10 VDC (e.g. $4 \mathrm{RO}=4.0 \mathrm{VDC} ; 400=40 \mathrm{VDC} ; 401=400 \mathrm{VDC}$ ).
Series Name. Fields 2, 3 and 4.
Enter the 3-letter/digit series name in fields 2, 3 and 4. If the series name is only 2 letters/digits, place a dash in field 4. For a series name with more than 3 letters/digits, refer to the individual series for the appropriate 3 -field series name.
1
Capacitor Type. Field 1.
Aluminum Electrolytic Capacitor (Polar).

## Appendix (Part number)

## -Capacitance code

* How to use the table

|  | 1st |
| :---: | :---: |
| 2nd | Cap. Value |

Capacitance value part

| 2nd |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ | $\mathbf{9}$ |
| $\mathbf{0}$ | 10.0 | 20.0 | 30.0 | 40.0 | 50.0 | 60.0 | 70.0 | 80.0 | 90.0 |
| $\mathbf{A}$ | 10.5 | 20.5 | 30.5 | 40.5 | 50.5 | 60.5 | 70.5 | 80.5 | 90.5 |
| $\mathbf{1}$ | 11.0 | 21.0 | 31.0 | 41.0 | 51.0 | 61.0 | 71.0 | 81.0 | 91.0 |
| $\mathbf{B}$ | 11.5 | 21.5 | 31.5 | 41.5 | 51.5 | 61.5 | 71.5 | 81.5 | 91.5 |
| $\mathbf{2}$ | 12.0 | 22.0 | 32.0 | 42.0 | 52.0 | 62.0 | 72.0 | 82.0 | 92.0 |
| $\mathbf{C}$ | 12.5 | 22.5 | 32.5 | 42.5 | 52.5 | 62.5 | 72.5 | 82.5 | 92.5 |
| $\mathbf{3}$ | 13.0 | 23.0 | 33.0 | 43.0 | 53.0 | 63.0 | 73.0 | 83.0 | 93.0 |
| $\mathbf{D}$ | 13.5 | 23.5 | 33.5 | 43.5 | 53.5 | 63.5 | 73.5 | 83.5 | 93.5 |
| $\mathbf{4}$ | 14.0 | 24.0 | 34.0 | 44.0 | 54.0 | 64.0 | 74.0 | 84.0 | 94.0 |
| $\mathbf{E}$ | 14.5 | 24.5 | 34.5 | 44.5 | 54.5 | 64.5 | 74.5 | 84.5 | 94.5 |
| $\mathbf{5}$ | 15.0 | 25.0 | 35.0 | 45.0 | 55.0 | 65.0 | 75.0 | 85.0 | 95.0 |
| F | 15.5 | 25.5 | 35.5 | 45.5 | 55.5 | 65.5 | 75.5 | 85.5 | 95.5 |
| $\mathbf{6}$ | 16.0 | 26.0 | 36.0 | 46.0 | 56.0 | 66.0 | 76.0 | 86.0 | 96.0 |
| $\mathbf{G}$ | 16.5 | 26.5 | 36.5 | 46.5 | 56.5 | 66.5 | 76.5 | 86.5 | 96.5 |
| $\mathbf{7}$ | 17.0 | 27.0 | 37.0 | 47.0 | 57.0 | 67.0 | 77.0 | 87.0 | 97.0 |
| $\mathbf{H}$ | 17.5 | 27.5 | 37.5 | 47.5 | 57.5 | 67.5 | 77.5 | 87.5 | 97.5 |
| $\mathbf{8}$ | 18.0 | 28.0 | 38.0 | 48.0 | 58.0 | 68.0 | 78.0 | 88.0 | 98.0 |
| $\mathbf{J}$ | 18.5 | 28.5 | 38.5 | 48.5 | 58.5 | 68.5 | 78.5 | 88.5 | 98.5 |
| $\mathbf{9}$ | 19.0 | 29.0 | 39.0 | 49.0 | 59.0 | 69.0 | 79.0 | 89.0 | 99.0 |
| K | 19.5 | 29.5 | 39.5 | 49.5 | 59.5 | 69.5 | 79.5 | 89.5 | 99.5 |

For less than $10 \mu \mathrm{~F}$, a decimal point position is displayed with R .
For $10 \mu \mathrm{~F}$ or more, capacitance code is set to the first 2 digits and index (1digit).
Treatment of fraction (Refer to the table)
Example of conversion

| Real cap. | The first 2 digits | Treatment of fraction | Code |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 11th | 12th | 13th |
| $10.0 \mu \mathrm{~F} \rightarrow$ | $10.0 \rightarrow$ | $10.0 \rightarrow$ | 1 | 0 | 0 |
| $10.1 \mu \mathrm{~F} \rightarrow$ | $10.1 \rightarrow$ | $10.0 \rightarrow$ | 1 | 0 | 0 |
| $10.2 \mu \mathrm{~F} \rightarrow$ | $10.2 \rightarrow$ | $10.0 \rightarrow$ | 1 | 0 | 0 |
| $10.3 \mu \mathrm{~F} \rightarrow$ | $10.3 \rightarrow$ | $10.5 \rightarrow$ | 1 | A | 0 |
| $10.4 \mu \mathrm{~F} \rightarrow$ | $10.4 \rightarrow$ | $10.5 \rightarrow$ | 1 | A | 0 |
| $10.5 \mu \mathrm{~F} \rightarrow$ | $10.5 \rightarrow$ | $10.5 \rightarrow$ | 1 | A | 0 |
| $10.6 \mu \mathrm{~F} \rightarrow$ | $10.6 \rightarrow$ | $10.5 \rightarrow$ | 1 | A | 0 |
| $10.7 \mu \mathrm{~F} \rightarrow$ | $10.7 \rightarrow$ | $10.5 \rightarrow$ | 1 | A | 0 |
| $10.8 \mu \mathrm{~F} \rightarrow$ | $10.8 \rightarrow$ | $11.0 \rightarrow$ | 1 | 1 | 0 |
| $10.9 \mu \mathrm{~F} \rightarrow$ | $10.9 \rightarrow$ | $11.0 \rightarrow$ | 1 | 1 | 0 |
| $11.0 \mu \mathrm{~F} \rightarrow$ | $11.0 \rightarrow$ | $11.0 \rightarrow$ | 1 | 1 | 0 |
| $132 \mu \mathrm{~F} \rightarrow$ | $13.2 \rightarrow$ | $13.0 \rightarrow$ | 1 | 3 | 1 |
| $133 \mu \mathrm{~F} \rightarrow$ | $13.3 \rightarrow$ | $13.5 \rightarrow$ | 1 | D | 1 |
| $167 \mu \mathrm{~F} \rightarrow$ | $16.7 \rightarrow$ | $16.5 \rightarrow$ | 1 | G | 1 |
| $168 \mu \mathrm{~F} \rightarrow$ | $16.8 \rightarrow$ | $17.0 \rightarrow$ | 1 | 7 | 1 |
| $1110 \mu \mathrm{~F} \rightarrow$ | $11.1 \rightarrow$ | $11.0 \rightarrow$ | 1 | 1 | 2 |
| $1340 \mu \mathrm{~F} \rightarrow$ | $13.4 \rightarrow$ | $13.5 \rightarrow$ | 1 | D | 2 |
| $13200 \mu \mathrm{~F} \rightarrow$ | $13.2 \rightarrow$ | $13.0 \rightarrow$ | 1 | 3 | 3 |
| $13600 \mu \mathrm{~F} \rightarrow$ | $13.6 \rightarrow$ | $13.5 \rightarrow$ | 1 | D | 3 |
| $270000 \mu \mathrm{~F} \rightarrow$ | $27.0 \rightarrow$ | $27.0 \rightarrow$ | 2 | 7 | 4 |

Case length (Radial lead type)

| Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.0 | - | - | 1.0 | 0 | 1 | 2.0 | 0 | 2 | 3.0 | 0 | 3 | 4.0 | 0 | 4 |
| 0.1 | 0 | B | 1.1 | 1 | B | 2.1 | 2 | B | 3.1 | 3 | B | 4.1 | 4 | B |
| 0.2 | 0 | C | 1.2 | 1 | C | 2.2 | 2 | C | 3.2 | 3 | C | 4.2 | 4 | C |
| 0.3 | 0 | D | 1.3 | 1 | D | 2.3 | 2 | D | 3.3 | 3 | D | 4.3 | 4 | D |
| 0.4 | 0 | E | 1.4 | 1 | E | 2.4 | 2 | E | 3.4 | 3 | E | 4.4 | 4 | E |
| 0.5 | 0 | F | 1.5 | 1 | F | 2.5 | 2 | F | 3.5 | 3 | F | 4.5 | 4 | F |
| 0.6 | 0 | G | 1.6 | 1 | G | 2.6 | 2 | G | 3.6 | 3 | G | 4.6 | 4 | G |
| 0.7 | 0 | H | 1.7 | 1 | H | 2.7 | 2 | H | 3.7 | 3 | H | 4.7 | 4 | H |
| 0.8 | 0 | J | 1.8 | 1 | J | 2.8 | 2 | J | 3.8 | 3 | J | 4.8 | 4 | J |
| 0.9 | 0 | K | 1.9 | 1 | K | 2.9 | 2 | K | 3.9 | 3 | K | 4.9 | 4 | K |
| Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th |
| 5.0 | 0 | 5 | 6.0 | 0 | 6 | 7.0 | 0 | 7 | 8.0 | 0 | 8 | 9.0 | 0 | 9 |
| 5.1 | 5 | B | 6.1 | 6 | B | 7.1 | 7 | B | 8.1 | 8 | B | 9.1 | 9 | B |
| 5.2 | 5 | C | 6.2 | 6 | C | 7.2 | 7 | C | 8.2 | 8 | C | 9.2 | 9 | C |
| 5.3 | 5 | D | 6.3 | 6 | D | 7.3 | 7 | D | 8.3 | 8 | D | 9.3 | 9 | D |
| 5.4 | 5 | E | 6.4 | 6 | E | 7.4 | 7 | E | 8.4 | 8 | E | 9.4 | 9 | E |
| 5.5 | 5 | F | 6.5 | 6 | F | 7.5 | 7 | F | 8.5 | 8 | F | 9.5 | 9 | F |
| 5.6 | 5 | G | 6.6 | 6 | G | 7.6 | 7 | G | 8.6 | 8 | G | 9.6 | 9 | G |
| 5.7 | 5 | H | 6.7 | 6 | H | 7.7 | 7 | H | 8.7 | 8 | H | 9.7 | 9 | H |
| 5.8 | 5 | J | 6.8 | 6 | J | 7.8 | 7 | J | 8.8 | 8 | J | 9.8 | 9 | J |
| 5.9 | 5 | K | 6.9 | 6 | K | 7.9 | 7 | K | 8.9 | 8 | K | 9.9 | 9 | K |
| Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th |
| 10.0 | 1 | 0 | 11.0 | 1 | 1 | 12.0 | 1 | 2 | 13.0 | 1 | 3 | 14.0 | 1 | 4 |
| 10.1 | A | 1 | 11.1 | B | 1 | 12.1 | C | 1 | 13.1 | D | 1 | 14.1 | E | 1 |
| 10.2 | A | 2 | 11.2 | B | 2 | 12.2 | C | 2 | 13.2 | D | 2 | 14.2 | E | 2 |
| 10.3 | A | 3 | 11.3 | B | 3 | 12.3 | C | 3 | 13.3 | D | 3 | 14.3 | E | 3 |
| 10.4 | A | 4 | 11.4 | B | 4 | 12.4 | C | 4 | 13.4 | D | 4 | 14.4 | E | 4 |
| 10.5 | A | 5 | 11.5 | B | 5 | 12.5 | C | 5 | 13.5 | D | 5 | 14.5 | E | 5 |
| 10.6 | A | 6 | 11.6 | B | 6 | 12.6 | C | 6 | 13.6 | D | 6 | 14.6 | E | 6 |
| 10.7 | A | 7 | 11.7 | B | 7 | 12.7 | C | 7 | 13.7 | D | 7 | 14.7 | E | 7 |
| 10.8 | A | 8 | 11.8 | B | 8 | 12.8 | C | 8 | 13.8 | D | 8 | 14.8 | E | 8 |
| 10.9 | A | 9 | 11.9 | B | 9 | 12.9 | C | 9 | 13.9 | D | 9 | 14.9 | E | 9 |

Product specifications in this catalog are subject to change without notice.Request our product specifications before purchase and/or use. Please use our products based on the information contained in this catalog and product specifications.

| Case length <br> $[\mathrm{mm}]$ | 16th | 17th |
| :---: | :---: | :---: |
| 15.0 | 1 | 5 |
| 15.1 | F | 1 |
| 15.2 | F | 2 |
| 15.3 | F | 3 |
| 15.4 | F | 4 |
| 15.5 | F | 5 |
| 15.6 | F | 6 |
| 15.7 | F | 7 |
| 15.8 | F | 8 |
| 15.9 | F | 9 |


| Case length <br> $[\mathrm{mm}]$ | 16th | 17th |
| :---: | :---: | :---: |
| 16.0 | 1 | 6 |
| 16.1 | G | 1 |
| 16.2 | G | 2 |
| 16.3 | G | 3 |
| 16.4 | G | 4 |
| 16.5 | G | 5 |
| 16.6 | G | 6 |
| 16.7 | G | 7 |
| 16.8 | G | 8 |
| 16.9 | G | 9 |


| Case length <br> $[\mathrm{mm}]$ | 16th | 17th |
| :---: | :---: | :---: |
| 17.0 | 1 | 7 |
| 17.1 | H | 1 |
| 17.2 | H | 2 |
| 17.3 | H | 3 |
| 17.4 | H | 4 |
| 17.5 | H | 5 |
| 17.6 | H | 6 |
| 17.7 | H | 7 |
| 17.8 | H | 8 |
| 17.9 | H | 9 |


| Case length <br> $[\mathrm{mm}]$ | 16th | 17th |
| :---: | :---: | :---: |
| 18.0 | 1 | 8 |
| 18.1 | J | 1 |
| 18.2 | J | 2 |
| 18.3 | J | 3 |
| 18.4 | J | 4 |
| 18.5 | J | 5 |
| 18.6 | J | 6 |
| 18.7 | J | 7 |
| 18.8 | J | 8 |
| 18.9 | J | 9 |


| Case length <br> $[\mathrm{mm}]$ | $\mathbf{1 6 t h}$ | $\mathbf{1 7 t h}$ |
| :---: | :---: | :---: |
| 19.0 | 1 | 9 |
| 19.1 | K | 1 |
| 19.2 | K | 2 |
| 19.3 | K | 3 |
| 19.4 | K | 4 |
| 19.5 | K | 5 |
| 19.6 | K | 6 |
| 19.7 | K | 7 |
| 19.8 | K | 8 |
| 19.9 | K | 9 |


| Case length <br> [mm] | 16th | 17th |
| :---: | :---: | :---: |
| 20.0 | 2 | 0 |
| 20.5 | L | 1 |
| 21.0 | 2 | 1 |
| 21.5 | L | 3 |
| 22.0 | 2 | 2 |
| 22.5 | L | 5 |
| 23.0 | 2 | 3 |
| 23.5 | L | 7 |
| $\mathbf{2 4 . 0}$ | 2 | 4 |
| 24.5 | L | 9 |
| 25.0 | 2 | 5 |
| 25.5 | M | 1 |
| 26.0 | 2 | 6 |
| 26.5 | M | 3 |
| 27.0 | 2 | 7 |
| $\mathbf{2 7 . 5}$ | M | 5 |
| $\mathbf{2 8 . 0}$ | 2 | 8 |
| 28.5 | M | 7 |
| 29.0 | 2 | 9 |
| 29.5 | M | 9 |


| Case length <br> [mm] | 16th | 17th |
| :---: | :---: | :---: |
| $\mathbf{3 0 . 0}$ | 3 | 0 |
| $\mathbf{3 0 . 5}$ | N | 1 |
| 31.0 | 3 | 1 |
| 31.5 | N | 3 |
| $\mathbf{3 2 . 0}$ | 3 | 2 |
| 32.5 | N | 5 |
| 33.0 | 3 | 3 |
| $\mathbf{3 3 . 5}$ | N | 7 |
| 34.0 | 3 | 4 |
| 34.5 | N | 9 |
| $\mathbf{3 5 . 0}$ | 3 | 5 |
| 35.5 | P | 1 |
| $\mathbf{3 6 . 0}$ | 3 | 6 |
| 36.5 | P | 3 |
| $\mathbf{3 7 . 0}$ | 3 | 7 |
| $\mathbf{3 7 . 5}$ | P | 5 |
| $\mathbf{3 8 . 0}$ | 3 | 8 |
| $\mathbf{3 8 . 5}$ | P | 7 |
| 39.0 | 3 | 9 |
| 39.5 | P | 9 |


| Case length <br> $[\mathrm{mm}]$ | 16th | 17th |
| :---: | :---: | :---: |
| 40.0 | 4 | 0 |
| 40.5 | Q | 1 |
| 41.0 | 4 | 1 |
| 41.5 | Q | 3 |
| 42.0 | 4 | 2 |
| 42.5 | Q | 5 |
| 43.0 | 4 | 3 |
| 43.5 | Q | 7 |
| 44.0 | 4 | 4 |
| 44.5 | Q | 9 |
| 45.0 | 4 | 5 |
| 45.5 | R | 1 |
| 46.0 | 4 | 6 |
| 46.5 | R | 3 |
| 47.0 | 4 | 7 |
| 47.5 | R | 5 |
| 48.0 | 4 | 8 |
| 48.5 | R | 7 |
| 49.0 | 4 | 9 |
| 49.5 | R | 9 |


| Case length <br> [mm] | $\mathbf{1 6 t h}$ | $\mathbf{1 7 t h}$ |
| :---: | :---: | :---: |
| $\mathbf{5 0 . 0}$ | 5 | 0 |
| $\mathbf{5 0 . 5}$ | S | 1 |
| $\mathbf{5 1 . 0}$ | 5 | 1 |
| $\mathbf{5 1 . 5}$ | S | 3 |
| $\mathbf{5 2 . 0}$ | 5 | 2 |
| $\mathbf{5 2 . 5}$ | S | 5 |
| $\mathbf{5 3 . 0}$ | 5 | 3 |
| $\mathbf{5 3 . 5}$ | S | 7 |
| $\mathbf{5 4 . 0}$ | 5 | 4 |
| $\mathbf{5 4 . 5}$ | S | 9 |
| $\mathbf{5 5 . 0}$ | 5 | 5 |
| $\mathbf{5 5 . 5}$ | T | 1 |
| $\mathbf{5 6 . 0}$ | 5 | 6 |
| $\mathbf{5 6 . 5}$ | T | 3 |
| $\mathbf{5 7 . 0}$ | 5 | 7 |
| $\mathbf{5 7 . 5}$ | T | 5 |
| $\mathbf{5 8 . 0}$ | 5 | 8 |
| $\mathbf{5 8 . 5}$ | T | 7 |
| $\mathbf{5 9 . 0}$ | 5 | 9 |
| $\mathbf{5 9 . 5}$ | T | 9 |


| Case length <br> $[\mathrm{mm}]$ | $\mathbf{1 6 t h}$ | $\mathbf{1 7 t h}$ |
| :---: | :---: | :---: |
| $\mathbf{6 0 . 0}$ | 6 | 0 |
| 60.5 | U | 1 |
| 61.0 | 6 | 1 |
| 61.5 | U | 3 |
| 62.0 | 6 | 2 |
| $\mathbf{6 2 . 5}$ | U | 5 |
| 63.0 | 6 | 3 |
| 63.5 | U | 7 |
| 64.0 | 6 | 4 |
| $\mathbf{6 4 . 5}$ | U | 9 |
| $\mathbf{6 5 . 0}$ | 6 | 5 |
| 65.5 | V | 1 |
| $\mathbf{6 6 . 0}$ | 6 | 6 |
| $\mathbf{6 6 . 5}$ | V | 3 |
| $\mathbf{6 7 . 0}$ | 6 | 7 |
| $\mathbf{6 7 . 5}$ | V | 5 |
| $\mathbf{6 8 . 0}$ | 6 | 8 |
| 68.5 | V | 7 |
| $\mathbf{6 9 . 0}$ | 6 | 9 |
| $\mathbf{6 9 . 5}$ | V | 9 |


| Case length [mm] | 16th | 17th | Case length [mm] | 16th | 17th |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 70.0 | 7 | 0 | 80.0 | 8 | 0 |
| 70.5 | W | 1 | 80.5 | Y | 1 |
| 71.0 | 7 | 1 | 81.0 | 8 | 1 |
| 71.5 | W | 3 | 81.5 | Y | 3 |
| 72.0 | 7 | 2 | 82.0 | 8 | 2 |
| 72.5 | W | 5 | 82.5 | Y | 5 |
| 73.0 | 7 | 3 | 83.0 | 8 | 3 |
| 73.5 | W | 7 | 83.5 | Y | 7 |
| 74.0 | 7 | 4 | 84.0 | 8 | 4 |
| 74.5 | W | 9 | 84.5 | Y | 9 |
| 75.0 | 7 | 5 | 85.0 | 8 | 5 |
| 75.5 | X | 1 | 85.5 | Z | 1 |
| 76.0 | 7 | 6 | 86.0 | 8 | 6 |
| 76.5 | X | 3 | 86.5 | Z | 3 |
| 77.0 | 7 | 7 | 87.0 | 8 | 7 |
| 77.5 | X | 5 | 87.5 | Z | 5 |
| 78.0 | 7 | 8 | 88.0 | 8 | 8 |
| 78.5 | X | 7 | 88.5 | Z | 7 |
| 79.0 | 7 | 9 | 89.0 | 8 | 9 |
| 79.5 | X | 9 | 89.5 | Z | 9 |

-Case length (Snap-in type / Screw mount terminal type)


## Supplement code <br> Conductive Polymer Aluminum Solid Capacitors (Chip and Radial lead type) <br> Conductive Polymer Hybrid Aluminum Electrolytic Capacitors (Chip and Radial lead type) <br> Aluminum Electrolytic Capacitors (Chip type)

|  | Terminal plating material |  |
| :---: | :---: | :---: |
|  | Sn | $\mathrm{Sn}-\mathrm{Bi}$ |
| Coating case | S | G |

Aluminum Electrolytic Capacitors (Radial lead and Snap-in type)

|  |  | Terminal plating material |  |
| :---: | :---: | :---: | :---: |
|  |  | Sn | Sn-Bi |
|  | PET | S | D |
|  | Coating case | H | G |
|  | Polyolefin | L | - |
|  | PVC | M | - |

* Standard design of "environmental friendly" snap-in are not equipped with a plastic disk on the top of the can case. We also produce snap-in type with "Plastic disk, PVC sleeve and Sn terminal plating".


## Aluminum Electrolytic Capacitors (Screw mount terminal type)

| Outer sleeve | Supplement code |
| :--- | :---: |
| PVC | U |
| Polyolefin | S |
| PET | C |

[^1]
## TAPING SPECIFICATIONS (Applicable standard JIS C 0806-3)

## SURFACE MOUNT TYPE (TAPING)

## -CARRIER TAPE [mm]

Fig. 1


## Fig. 2



Fig. 3

Fig. 4


## Fig. 5



[mm]


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\section*{- REEL DIMENSIONS [mm] <br>  <br> -POLARITY <br> | Alchip ${ }^{\text {TM }}$-MVE/MZT/MZS |  | Feed Direction |
| :---: | :---: | :---: |
|  | MZL/MZR/MZJ |  |
|  | MZA / MVY / MZF | $\mathrm{POOOO}$ |
|  | MZE/MZK/MLA | $1 \times 1$ |
|  | MLF/MLE/MLK | $+\square+$ |
|  | MVL/MVJ/MXB |  |
|  | MHS / MVH/MHL |  |
|  | $\mathrm{MHB} / \mathrm{MHJ} / \mathrm{MHK}$ |  |
| NP CAP ${ }^{\text {TM }}$ | -PMF |  |
|  | PXN/PXT/PXJ/PXG |  |
|  | PXK/PXS/PXF/PXE |  |
|  | PXA/PXD/PXH |  |
| Hybrid | -HXF/HXE/HXJ/HXC |  | <br> SURFACE MOUNT TYPE (TRAY) <br> -DIMENSIONS [mm] <br> W1 <br> }

## -QUANTITY PER REEL/BOX

| Series | Size code | Quantity (pcs/reel) | $\begin{aligned} & \text { Quantity } \\ & \text { (pcs/box) } \end{aligned}$ | $\begin{gathered} \mathrm{W}_{1} \\ (\mathrm{~mm}) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Alchip ${ }^{\text {TM }}$ <br> MVE/MZT <br> MZS/MZL <br> MZR/MZJ <br> MZA/MVY <br> MZF/MZE <br> MZK / MLA <br> MLF/MLE <br> MLK/MVL <br> MVJ/MXB <br> MHS/MVH <br> MHL/MHB <br> MHJ/MHK <br> Hybrid <br> HXF <br> HXE/HXJ <br> HXC/HXD <br> NPCAP ${ }^{\text {TM }}$ <br> PMF <br> PXN/PXT <br> PXJ/PXG <br> PXK/PXS <br> PXF/PXE <br> PXA/PXD <br> PXH | 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 |
|  | HAO | 500 | 1,500 | 26 |
|  | JAO | 500 | 1,500 | 26 |
|  | JC5 | 400 | 1,200 | 26 |
|  | JHO | 200 | 600 | 34 |
|  | KE0 | 250*1 | 750*1 | 34 |
|  | KG5 | 200*1 | 600*1 | 34 |
|  | KNO | 150 | 450 | 34 |
|  | LH0 | 175*1 | 350*1 | 46 |
|  | LNO | $125^{* 1}$ | 250*1 | 46 |
|  | MHO | $150{ }^{* 1}$ | 300*1 | 46 |
|  | MNO | $100^{* 1}$ | 200*1 | 46 |
|  | E40,E46,E61 | 1,000 | 10,000 | 14 |
|  | F30 | 2,000 | 10,000 | 18 |
|  | F46,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 |
|  | HAO | 500 | 3,000 | 26 |
|  | HCO | 400 | 1,200 | 26 |
|  | J80 | 500 | 3,000 | 26 |
|  | JAO | 500 | 3,000 | 26 |
|  | JC0 | 400 | 1,200 | 26 |

*1 : Changed the packing quantity. (Size Code : KEO to MNO)
-TRAY CODE :TR


| Size code | H <br> $[\mathrm{mm}]$ | W1 <br> $[\mathrm{mm}]$ | H 1 <br> $[\mathrm{~mm}]$ | Quantity <br> $[\mathrm{pcs} /$ tray $]$ | Quantity <br> $[\mathrm{pcs} / \mathrm{box}]$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| KE0 \& KG5 | 21.0 | 284 | 18.5 | 120 | 600 |
| LH0 \& LN0 | 28.0 | 284 | 24.0 | 80 | 400 |
| MHO \& MNO | 28.0 | 284 | 24.0 | 60 | 300 |

VIBRATION RESISTANT STRUCTURE (Terminal code : G)

- DIMENSIONS [mm]
-Terminal code : G


Note : $\mathrm{L} \pm 0.5$ for HAO to JHO

$\ominus$
ZZA : Dummy terminals

- Size code : KEO to MNO 0.3 max.

$\llcorner \pm 0.5$
: Dummy terminals
\&RECOMMENDED SOLDER LAND


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 |
| F61 | 6.3 | 5.8 | 6.6 | 6.6 | 7.2 | 0.5 to 0.8 | 1.9 | (0.7) | (1.4) | 1.9 | 3.5 | 3.3 |
| F80 | 6.3 | 7.7 | 6.6 | 6.6 | 7.2 | 0.5 to 0.8 | 1.9 | (0.7) | (1.4) | 1.9 | 3.5 | 3.3 |
| HAO | 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 |
| JAO | 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 |
| JC5 | 10.0 | 12.5 | 10.3 | 10.3 | 11.0 | 0.7 to 1.1 | 4.5 | (0.5) | (2.1) | 4.5 | 4.4 | 3.5 |
| JH0 | 10.0 | 16.5 | 10.3 | 10.3 | 11.0 | 1.0 to 1.3 | 4.2 | (0.5) | (2.1) | 4.0 | 4.7 | 3.8 |
| KEO | 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 |
| LHO | 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 |
| LNO | 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 |
| MHO | 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 $\phi \mathrm{D}=\phi 5$


## Fig. 2

Taping Code : TD $\phi \mathrm{D}=\phi 6.3$ to 10


| Code | Taping Code | Case size |  | $\phi \mathrm{d}$ | P | $\mathrm{P}_{0}$ | $\mathrm{P}_{1}$ | $\mathrm{P}_{2}$ | F | W | $\mathrm{W}_{0}$ | $\mathrm{W}_{1}$ | $\mathrm{W}_{2}$ | H | $\mathrm{H}_{1}$ | $\phi \mathrm{D}_{0}$ | $\triangle h_{1}$ | $\triangle h_{2}$ | t | T | Fig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ¢ D | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tol. | - | - | - | $\pm 0.05$ | $\pm 1.0$ | $\pm 0.2$ | $\pm 0.7$ | $\pm 1.0$ | $\pm 0.8$ | $\pm 0.5$ | min. | $\pm 0.5$ | max. | $\pm 0.75$ | max. | $\pm 0.2$ | $\pm 2.0$ | $\pm 2.0$ | $\pm 0.3$ | $\pm 1.0$ |  |
|  | TX | 5 | 8 | 0.5 | 12.7 | 12.7 | 5.35 | 6.35 | 2.0*2 | 18 | 10 | 9.0 | 2.5 | 18.5 | 28.25 | 4.0 | 0 | 0 | 0.7 | 0 | 1 |
|  | TD | 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 | $28.75^{* 1}$ | 4.0 | 0 | 0 | 0.7 | 0 | 2 |
|  |  | 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 | $0.6{ }^{* 1}$ | 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 | $0.6{ }^{* 1}$ | 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 $\phi 5 \times 8$ (Taping code : TX), H dimension shall be 2.0 ${ }^{+0.5-0.0}$

TAPING CODE

## Example



QUANTITY PER AMMO PACK

Ammo pack box


Typical example

| $\begin{gathered} \text { Case size } \\ \phi \mathrm{D} \times \mathrm{L}(\mathrm{~mm}) \\ \hline \end{gathered}$ |  | $\begin{array}{\|c\|} \hline \mathbf{A} \\ (\mathrm{mm}) \end{array}$ | $\begin{gathered} \mathrm{B} \\ (\mathrm{~mm}) \end{gathered}$ | $\underset{(\mathrm{mm})}{\mathrm{C}}$ | Quantity (pcs.) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$5 | $\mathrm{L}=8 \mathrm{~mm}$ | 240 | 51 | 336 | 2,000 |
| ¢6.3 | $\mathrm{L}=5$ \& 8mm | 285 | 51 | 336 | 2,000 |
| ¢8 | $\mathrm{L}=8$ to 11.5 mm | 240 | 51 | 336 | 1,000 |
|  | $\mathrm{L}=16 \mathrm{~mm}$ | 240 | 56 | 336 |  |
|  | $\mathrm{L}=20 \mathrm{~mm}$ | 240 | 62 | 336 |  |
| ¢10 | $\mathrm{L}=10.5$ to 12.5 mm | 190 | 51 | 337 | 500 |
|  | $\mathrm{L}=16 \mathrm{~mm}$ | 308 | 56 | 337 | 800 |
|  | $\mathrm{L}=20 \mathrm{~mm}$ | 308 | 62 | 337 |  | Rated voltage code Series code Category

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

## Aluminum Electrolytic Capacitors

## $\rightarrow$ DIMENSION [mm]

## Fig. 1

Taping Code : TC $\phi \mathrm{D}=\phi 5$ to 8


## Fig. 2

Taping Code :TD $\phi \mathrm{D}=\phi 5$


## Fig. 3

Taping Code :TD $\phi \mathrm{D}=\phi 6.3$ to 12.5


## Fig. 4

Taping Code : TE
$\phi \mathrm{D}=\phi 12.5$


| Code | Taping Code | Cas | se size | $\phi \mathrm{d}$ | P | $\mathrm{P}_{0}$ | $\mathrm{P}_{1}$ | $\mathrm{P}_{2}$ | F | W | $\mathrm{W}_{0}$ | W | $\mathrm{W}_{2}$ | H | $\mathrm{H}_{0}$ | $\mathrm{H}_{1}$ | Fig |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ¢ D | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tol. |  | - | - | $\pm 0.05$ | $\pm 1.0$ | $\pm 0.2$ | $\pm 0.7$ | $\pm 1.0$ | $\pm 0.8$ | $\pm 0.5$ | min. | $\pm 0.5$ | max. | $\pm 0.75$ | $\pm 0.5$ |  |  |
|  | TD | 5 | 11 to 15 | $0.5^{* 1}$ | 12.7 | 12.7 | 5.1 3.85 | 6.35 | 2.5 | 18.0 | 10.0 | 9.0 | 1.5 | 18.5 | $\overline{16.0}$ |  | 2 |
|  | TD |  |  |  |  |  | 5.1 | 6.35 | 2.5 | 18.0 | 10.0 | 9.0 | 1.5 | 18.5 | 16.0 |  | 3 |
|  | TC | 6.3 | 11 to 15 | 0.5 | 12.7 | 12.7 | 3.85 |  | 5 |  |  |  |  |  |  |  | 1 |
|  | TD | 8 | 11.5 to 20 | 0.6 | 12.7 | 12.7 | $\frac{4.6}{3.85}$ | 6.35 | $\begin{gathered} 3.5 \\ 5 \end{gathered}$ | 18.0 | 10.0 | 9.0 | 1.5 | 20.0 | 16.0 |  | 1 |
| tol. |  | $\pm 0.5$ | max. | $\pm 0.05$ | $\pm 1.0$ | $\pm 0.3$ | $\pm 0.7$ | $\pm 1.3$ | $\pm 0.8$ | $\pm 0.5$ | min. | $\pm 0.5$ | max. | $\pm 2.0$ | - | 4$\pm$는 븡 도 © |  |
|  | TD | 10 | 21 | $0.6{ }^{* 1}$ | 12.7 | 12.7 | 3.85 | 6.35 | 5 | 18.0 | 12.5 | 9.0 | 1.5 | 18.0 | - |  | 3 |
|  | TD | 12.5 | 26 | $0.6{ }^{* 1}$ | 15 | 15 | 5.0 | 7.5 | 5 | 18.0 | 12.5 | 9.0 | 1.5 | 18.0 | - | $\frac{0}{0}$ | 3 |
|  | TE |  |  | $0.6{ }^{\text {* }}$ | 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 : The taping for size $\phi 16$ and $\phi 18$ is available as a custom design.
* 3 : For the Taping code TD products with case diameter $\geqq 12.5 \mathrm{~mm}$, 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

| $\begin{gathered} \text { Case size } \\ \phi \mathrm{D} \times \mathrm{L}(\mathrm{~mm}) \end{gathered}$ |  | $\underset{(\mathrm{mm})}{\mathrm{A}}$ | $\begin{gathered} \text { B } \\ (\mathrm{mm}) \end{gathered}$ | Quantity (pcs.) |
| :---: | :---: | :---: | :---: | :---: |
| ¢5 | L=11 to 15 mm | 232 | 51 | 2,000 |
|  | $\mathrm{L}=17 \mathrm{~mm}$ | 235 | 60 |  |
| \$6.3 | L=11 to 15 mm | 284 | 51 | 2,000 |
|  | $\mathrm{L}=17 \mathrm{~mm}$ | 284 | 55 |  |
| ¢8 | L=11.5 to 15 mm | 232 | 51 | 1,000 |
|  | $\mathrm{L}=17$ \& 20 mm | 235 | 60 |  |
| \$10 | L $\leq 16 \mathrm{~mm}$ | 308 | 56 | 800 |
|  | L=17 to 20 mm | 308 | 62 |  |
|  | $\mathrm{L}=21$ to 25 mm | 308 | 67 |  |
|  | L=26 to 30 mm | 308 | 71 | 500 |
| ¢ 12.5 | $\mathrm{L} \leqq 16 \mathrm{~mm}$ | 308 | 62 | 500 |
|  | L=17 to 25 mm | 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.

*4 Please refer to dimensions of each series for lead-wire diameter ( $\phi \mathrm{d})$.


[^0]:    *1 Negative terminal : Mesh marking
    *2 Use the dummy terminals for mechanical support only.
    The dummy terminals must not be connected to any circuit trace on PC board, be sure to electrically isolate from the negative and the positive terminals.

[^1]:    * For the screw-mount type, the standard design has a plastic disk on the bottom side.

