

HIGH VOLTAGE, RADIAL, POLARIZED, EXTENDED TEMPERATURE

### FEATURES

- HIGH VOLTAGE/TEMPERATURE (UP TO 450VDC/+105°C)
- NEW REDUCED SIZES

### CHARACTERISTICS

|                                                                                        |                                                                    |                                           |      |      |      |      |      |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------|------|------|------|------|------|
| Rated Voltage Range                                                                    | 160 ~ 450VDC                                                       | *See Part Number System for Details       |      |      |      |      |      |
| Capacitance Range                                                                      | 1.0 ~ 330μF                                                        |                                           |      |      |      |      |      |
| Operating Temperature Range                                                            | -40°C ~ +105°C (160 ~ 400V)<br>or -25°C ~ +105°C (450V)            |                                           |      |      |      |      |      |
| Capacitance Tolerance                                                                  | ±20% (M)                                                           |                                           |      |      |      |      |      |
| Maximum Leakage Current @ 20°C                                                         | CV ≤ 1000μF 0.03CV +15μA, CV > 1000μF 0.02 +25μA (after 2 minutes) |                                           |      |      |      |      |      |
| Max. Tan δ @ 120Hz/20°C                                                                | W.V.                                                               | 160                                       | 200  | 250  | 350  | 400  | 450  |
|                                                                                        | S.V.                                                               | 200                                       | 250  | 300  | 400  | 450  | 500  |
|                                                                                        | Tan δ                                                              | 0.20                                      | 0.20 | 0.20 | 0.25 | 0.25 | 0.25 |
| Low Temperature Stability<br>Impedance Ratio @ 120Hz                                   | Z-25°C/Z+20°C                                                      | 3                                         | 3    | 3    | 4    | 6    | 6    |
|                                                                                        | Z-40°C/Z+20°C                                                      | 6                                         | 6    | 6    | 8    | 10   | -    |
| Load Life Test at Rated W.V.<br>+105°C 2,000 Hours: 10φ & Up<br>+105°C 1,000 Hours: 8φ | Capacitance Change                                                 | Within ±25% of initial measured value     |      |      |      |      |      |
|                                                                                        | Tan δ                                                              | Less than 200% of specified maximum value |      |      |      |      |      |
|                                                                                        | Leakage Current                                                    | Less than specified maximum value         |      |      |      |      |      |
| Shelf Life Test<br>+85°C 1 000 Hours with no load                                      | Shall meet same requirements as in load life test                  |                                           |      |      |      |      |      |

**RoHS Compliant**  
includes all homogeneous materials

\*See Part Number System for Details



### STANDARD PRODUCT AND CASE SIZE TABLE DφxL (mm)

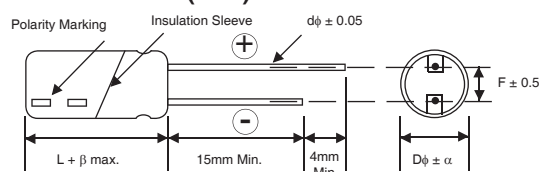
| Cap (μF) | Code | Working Voltage (Vdc) |         |                  |         |         |         |
|----------|------|-----------------------|---------|------------------|---------|---------|---------|
|          |      | 160                   | 200     | 250              | 350     | 400     | 450     |
| 1.0      | 1R0  | 5x11                  | 5x11    | 5x11             | 6.3x11  | 8x11.5  | 8x12.5  |
| 2.2      | 2R2  | 6.3x11                | 6.3x11  | 6.3x11           | 8x11.5  | 8x11.5  | 10x16   |
| 3.3      | 3R3  | 6.3x11                | 6.3x11  | 8x11.5           | 8x12.5  | 10x12.5 | 10x20   |
| 4.7      | 4R7  | 6.3x11                | 8x11.5  | 8x11.5           | 10x12.5 | 10x16   | 12.5x20 |
| 10       | 100  | 8x11.5                | 8x12.5  | 10x12.5          | 10x20   | 10x20   | 12.5x25 |
| 22       | 220  | 10x12.5               | 10x16   | 10x20            | 12.5x25 | 12.5x25 | 16x25   |
| 33       | 330  | 10x20                 | 10x20   | 12.5x20          | 16x25   | 16x25   | 16x31   |
| 47       | 470  | 12.5x20               | 12.5x20 | 12.5x25          | 16x31   | 16x31   | 18x36   |
| 68       | 680  | 12.5x20               | 12.5x25 | 16x25            | 16x36   | 18x36   | 18x41   |
| 82       | 820  | 12.5x25               | -       | 16x31.5<br>18x25 | 18x35.5 | 18x41   | -       |
| 100      | 101  | 12.5x25               | 16x25   | 16x36            | 18x41   | -       | -       |
| 150      | 151  | 16x31                 | 16x36   | 18x36            | -       | -       | -       |
| 220      | 221  | 16x36                 | 18x36   | -                | -       | -       | -       |
| 330      | 331  | 18x41                 | -       | -                | -       | -       | -       |

### LEAD SPACING AND DIAMETER (mm)

| Case Dia. (Dφ)   | 5   | 6.3 | 8   | 10  | 12.5 | 16  | 18  |
|------------------|-----|-----|-----|-----|------|-----|-----|
| Lead Dia. (dφ)   | 0.5 | 0.5 | 0.6 | 0.6 | 0.6  | 0.8 | 0.8 |
| Lead Spacing (F) | 2.0 | 2.5 | 3.5 | 5.0 | 5.0  | 7.5 | 7.5 |
| Dim α            | 0.5 | 0.5 | 0.5 | 0.5 | 0.5  | 0.5 | 0.5 |

β = L < 20mm = 1.5mm, L > 20mm = 2.0mm

### DIMENSIONS (mm)



Drawing is representative of parts as supplied in bulk or straight lead format, please see taping specification for details on taped format packaging.

### PART NUMBER SYSTEM

NREHW 220 M 200V 10X16 TB Y F

RoHS Compliant

TB = Tape & Box\*

Case Size (DφxL)

Working Voltage (Vdc)

Tolerance Code (M=20%)

Capacitance Code: First 2 characters significant, third character is multiplier

Series

\*see taping specifications for details

Optional: For automotive equipment, sourced to special production and inspection at TS-16949 certified production site.

### PRECAUTIONS

Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.  
Also found at [www.niccomp.com/precautions](http://www.niccomp.com/precautions)  
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: [tpmg@niccomp.com](mailto:tpmg@niccomp.com)



### STANDARD VALUES, SPECIFICATIONS AND CASE SIZES (mm)

| Part Number            | Cap. (μF) | W.V. (Vdc) | Dissipation Factor +20°C/120Hz | Ripple Current Rating (mA) +105°C/120Hz | Max. ESR (Ω) +20°C/120Hz | Load Life Hours @ +105°C |
|------------------------|-----------|------------|--------------------------------|-----------------------------------------|--------------------------|--------------------------|
| NRE-HW1R0M160V5x11F    | 1.0       | 160        | 0.20                           | 15                                      | 332                      | 1,000                    |
| NRE-HW2R2M160V6.3x11F  | 2.2       |            | 0.20                           | 22                                      | 151                      | 1,000                    |
| NRE-HW3R3M160V6.3x11F  | 3.3       |            | 0.20                           | 28                                      | 101                      | 1,000                    |
| NRE-HW4R7M160V6.3x11F  | 4.7       |            | 0.20                           | 39                                      | 70.6                     | 1,000                    |
| NRE-HW100M160V8x11.5F  | 10        |            | 0.20                           | 63                                      | 33.2                     | 1,000                    |
| NRE-HW220M160V10x12.5F | 22        |            | 0.20                           | 107                                     | 15.1                     | 2,000                    |
| NRE-HW330M160V10x20F   | 33        |            | 0.20                           | 137                                     | 10.1                     | 2,000                    |
| NRE-HW470M160V12.5x20F | 47        |            | 0.20                           | 172                                     | 7.06                     | 2,000                    |
| NRE-HW680M160V12.5x20F | 68        |            | 0.20                           | 217                                     | 4.88                     | 2,000                    |
| NRE-HW820M160V12.5x25F | 82        |            | 0.20                           | 270                                     | 4.05                     | 2,000                    |
| NRE-HW101M160V12.5x25F | 100       |            | 0.20                           | 287                                     | 3.32                     | 2,000                    |
| NRE-HW151M160V16x31F   | 150       |            | 0.20                           | 385                                     | 2.21                     | 2,000                    |
| NRE-HW221M160V16x36F   | 220       |            | 0.20                           | 522                                     | 1.51                     | 2,000                    |
| NRE-HW331M160V18x41F   | 330       |            | 0.20                           | 560                                     | 1.01                     | 2,000                    |
| NRE-HW1R0M200V5x11F    | 1.0       | 200        | 0.20                           | 16                                      | 332                      | 1,000                    |
| NRE-HW2R2M200V6.3x11F  | 2.2       |            | 0.20                           | 24                                      | 151                      | 1,000                    |
| NRE-HW3R3M200V6.3x11F  | 3.3       |            | 0.20                           | 32                                      | 101                      | 1,000                    |
| NRE-HW4R7M200V8x11.5F  | 4.7       |            | 0.20                           | 40                                      | 70.6                     | 1,000                    |
| NRE-HW100M200V8x12.5F  | 10        |            | 0.20                           | 64                                      | 33.2                     | 1,000                    |
| NRE-HW220M200V10x16F   | 22        |            | 0.20                           | 112                                     | 15.1                     | 2,000                    |
| NRE-HW330M200V10x20F   | 33        |            | 0.20                           | 147                                     | 10.1                     | 2,000                    |
| NRE-HW470M200V12.5x20F | 47        |            | 0.20                           | 175                                     | 7.06                     | 2,000                    |
| NRE-HW680M200V12.5x25F | 68        |            | 0.20                           | 228                                     | 4.88                     | 2,000                    |
| NRE-HW101M200V16x25F   | 100       |            | 0.20                           | 301                                     | 3.32                     | 2,000                    |
| NRE-HW151M200V16x36F   | 150       |            | 0.20                           | 403                                     | 2.21                     | 2,000                    |
| NRE-HW221M200V18x36F   | 220       |            | 0.20                           | 532                                     | 1.51                     | 2,000                    |
| NRE-HW1R0M250V5x11F    | 1.0       | 250        | 0.20                           | 18                                      | 332                      | 1,000                    |
| NRE-HW2R2M250V6.3x11F  | 2.2       |            | 0.20                           | 25                                      | 151                      | 1,000                    |
| NRE-HW3R3M250V8x11.5F  | 3.3       |            | 0.20                           | 34                                      | 101                      | 1,000                    |
| NRE-HW4R7M250V8x11.5F  | 4.7       |            | 0.20                           | 41                                      | 70.6                     | 1,000                    |
| NRE-HW100M250V10x12.5F | 10        |            | 0.20                           | 66                                      | 33.2                     | 2,000                    |
| NRE-HW220M250V10x20F   | 22        |            | 0.20                           | 119                                     | 15.1                     | 2,000                    |
| NRE-HW330M250V12.5x20F | 33        |            | 0.20                           | 154                                     | 10.1                     | 2,000                    |
| NRE-HW470M250V12.5x25F | 47        |            | 0.20                           | 182                                     | 7.06                     | 2,000                    |
| NRE-HW680M250V16x25F   | 68        |            | 0.20                           | 235                                     | 4.88                     | 2,000                    |
| NRE-HW820M250V16x31.5F | 82        |            | 0.20                           | 284                                     | 4.05                     | 2,000                    |
| NRE-HW820M250V18x25F   | 82        |            | 0.20                           | 284                                     | 4.05                     | 2,000                    |
| NRE-HW101M250V16x36F   | 100       |            | 0.20                           | 302                                     | 3.32                     | 2,000                    |
| NRE-HW151M250V18x36F   | 150       |            | 0.20                           | 412                                     | 2.21                     | 2,000                    |
| NRE-HW1R0M350V6.3x11F  | 1.0       | 350        | 0.25                           | 20                                      | 415                      | 1,000                    |
| NRE-HW2R2M350V8x11.5F  | 2.2       |            | 0.25                           | 28                                      | 188                      | 1,000                    |
| NRE-HW3R3M350V8x12.5F  | 3.3       |            | 0.25                           | 36                                      | 126                      | 1,000                    |
| NRE-HW4R7M350V10x12.5F | 4.7       |            | 0.25                           | 47                                      | 86.2                     | 2,000                    |
| NRE-HW100M350V10x20F   | 10        |            | 0.25                           | 70                                      | 41.5                     | 2,000                    |
| NRE-HW220M350V12.5x25F | 22        |            | 0.25                           | 123                                     | 18.8                     | 2,000                    |
| NRE-HW330M350V16x25F   | 33        |            | 0.25                           | 158                                     | 12.6                     | 2,000                    |
| NRE-HW470M350V16x31F   | 47        |            | 0.25                           | 182                                     | 8.82                     | 2,000                    |
| NRE-HW680M350V16x36F   | 68        |            | 0.25                           | 242                                     | 6.10                     | 2,000                    |
| NRE-HW820M350V18x35.5F | 82        |            | 0.25                           | 294                                     | 5.06                     | 2,000                    |
| NRE-HW101M350V18x41F   | 100       |            | 0.25                           | 308                                     | 4.15                     | 2,000                    |
| NRE-HW1R0M400V8x11.5F  | 1.0       | 400        | 0.25                           | 20                                      | 415                      | 1,000                    |
| NRE-HW2R2M400V8x11.5F  | 2.2       |            | 0.25                           | 28                                      | 188                      | 1,000                    |
| NRE-HW3R3M400V10x12.5F | 3.3       |            | 0.25                           | 36                                      | 126                      | 2,000                    |
| NRE-HW4R7M400V10x16F   | 4.7       |            | 0.25                           | 47                                      | 86.2                     | 2,000                    |
| NRE-HW100M400V10x20F   | 10        |            | 0.25                           | 70                                      | 41.5                     | 2,000                    |

For Automotive Applications see part number system



### STANDARD VALUES, SPECIFICATIONS AND CASE SIZES (mm)

| Part Number            | Cap. (μF) | W.V. (Vdc) | Dissipation Factor +20°C/120Hz | Ripple Current Rating (mA) +105°C/120Hz | Max. ESR (Ω) +20°C/120Hz | Load Life Hours @+105°C |
|------------------------|-----------|------------|--------------------------------|-----------------------------------------|--------------------------|-------------------------|
| NRE-HW220M400V12.5x25F | 22        | 400        | 0.25                           | 126                                     | 18.8                     | 2,000                   |
| NRE-HW330M400V16x25F   | 33        |            | 0.25                           | 161                                     | 12.6                     | 2,000                   |
| NRE-HW470M400V16x31F   | 47        |            | 0.25                           | 189                                     | 8.82                     | 2,000                   |
| NRE-HW680M400V18x36F   | 68        |            | 0.25                           | 249                                     | 6.10                     | 2,000                   |
| NRE-HW820M400V18x41F   | 82        |            | 0.25                           | 315                                     | 5.06                     | 2,000                   |
| NRE-HW1R0M450V8x12.5F  | 1.0       | 450        | 0.25                           | 18                                      | 415                      | 1,000                   |
| NRE-HW2R2M450V10x16F   | 2.2       |            | 0.25                           | 28                                      | 188                      | 2,000                   |
| NRE-HW3R3M450V10x20F   | 3.3       |            | 0.25                           | 36                                      | 126                      | 2,000                   |
| NRE-HW4R7M450V12.5x20F | 4.7       |            | 0.25                           | 47                                      | 86.2                     | 2,000                   |
| NRE-HW100M450V12.5x25F | 10        |            | 0.25                           | 70                                      | 41.5                     | 2,000                   |
| NRE-HW220M450V16x25F   | 22        |            | 0.25                           | 125                                     | 18.8                     | 2,000                   |
| NRE-HW330M450V16x31F   | 33        |            | 0.25                           | 154                                     | 12.6                     | 2,000                   |
| NRE-HW470M450V18x36F   | 47        |            | 0.25                           | 172                                     | 8.82                     | 2,000                   |
| NRE-HW680M450V18x41F   | 68        |            | 0.25                           | 189                                     | 6.10                     | 2,000                   |

For Automotive Applications see part number system

### RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

| Cap. Value   | Frequency (Hz) |         |            |
|--------------|----------------|---------|------------|
|              | 100 ~ 500      | 1K ~ 5K | 10K ~ 100K |
| <100μF       | 1.00           | 1.30    | 1.50       |
| 100 ~ 1000μF | 1.00           | 1.20    | 1.30       |

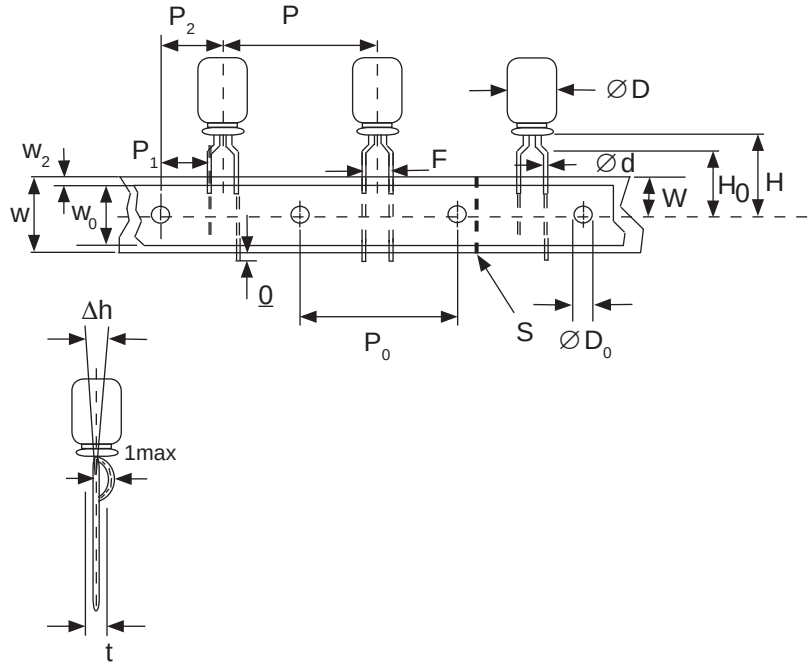


# Miniature Aluminum Electrolytic Capacitors Taping Specifications

## STANDARD RADIAL TAPING (5mm LEAD SPACING, FORMED LEADS) TB

Taping Dimensions (mm)

| Case Dia.<br>(D $\phi$ ) | 4                                  | 5    | 6.3   | 8      |
|--------------------------|------------------------------------|------|-------|--------|
| Case Size                | 4x5                                | 5x5  | 6.3x5 | 8x5    |
| Dim.                     | 4x7                                | 5x7  | 6.3x7 | 8x11.5 |
| d $\phi$ $\pm 0.05$      | 0.45                               | 0.45 | 0.5   | 0.6    |
| H $\pm 0.75$             | 17.5                               | 17.5 | 17.5  | 20.0   |
| F $+0.8 \sim -0.2$       | 5.0 $-0.2 \sim +0.8$               |      |       |        |
| P                        | 12.7 $\pm 1.0$                     |      |       |        |
| P <sub>0</sub>           | 12.7 $\pm 0.2$                     |      |       |        |
| P <sub>1</sub>           | 3.85 $\pm 0.5$ (at end of tape)    |      |       |        |
| P <sub>2</sub>           | 6.35 $\pm 1.0$                     |      |       |        |
| W                        | 18.0 $\pm 0.5$                     |      |       |        |
| W <sub>0</sub>           | 11.5 min.                          |      |       |        |
| W <sub>1</sub>           | 9.0 $\pm 0.5$                      |      |       |        |
| W <sub>2</sub>           | 0 $\sim 2.5$                       |      |       |        |
| H <sub>0</sub>           | 16.0 $\pm 0.5$                     |      |       |        |
| l                        | 1.0 max.                           |      |       |        |
| D <sub>0</sub> $\phi$    | 4.0 $\pm 0.2$                      |      |       |        |
| $\Delta h$               | 0 $\pm 1.0$ (at top of can)        |      |       |        |
| t                        | 0.7 $\pm 0.2$ (not including lead) |      |       |        |



## STANDARD RADIAL TAPING (5mm LEAD SPACING, STRAIGHT LEADS) TB

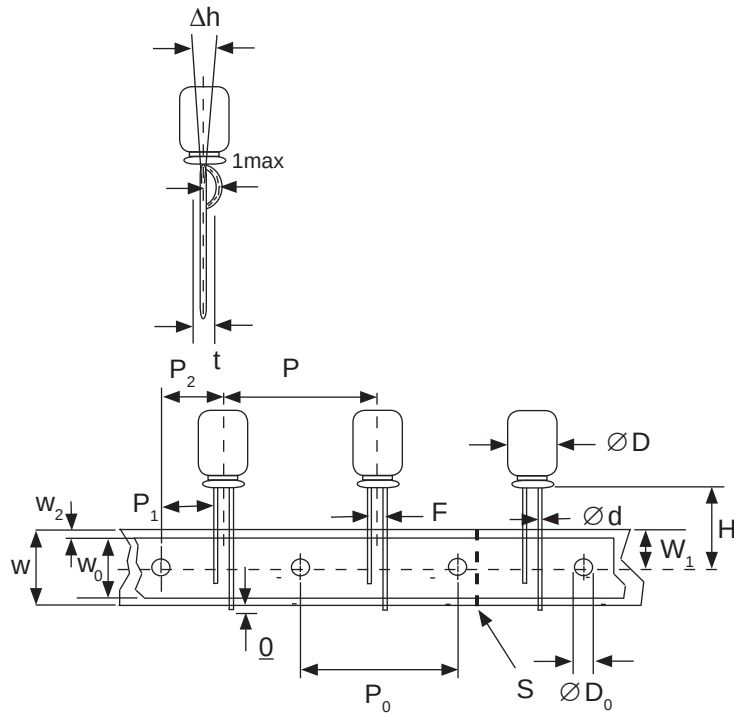
Taping Dimensions (mm)

| Case Dia.<br>(D $\phi$ ) | 10                                 | 12.5 |
|--------------------------|------------------------------------|------|
| Case Size                | All                                | All  |
| Dim.                     | All                                | All  |
| d $\phi$ $\pm 0.05$      | 0.6                                | 0.6  |
| H $\pm 0.75$             | 19.0                               | 19.0 |
| F $+0.8 \sim -0.2$       | 5.0                                | 5.0  |
| P $\pm 1.0$              | 25.4*                              |      |
| P <sub>0</sub>           | 12.7 $\pm 0.2$                     |      |
| P <sub>1</sub>           | 3.85                               |      |
| P <sub>2</sub>           | 6.35 $\pm 1.0$                     |      |
| W                        | 18.0 $\pm 0.5$                     |      |
| W <sub>0</sub>           | 11.5 min                           |      |
| W <sub>1</sub>           | 9.0 $\pm 0.5$                      |      |
| W <sub>2</sub>           | 0 $\sim 2.5$                       |      |
| H <sub>0</sub>           | 16.0 $\pm 0.5$                     |      |
| l                        | 1.0 max.                           |      |
| D <sub>0</sub> $\phi$    | 4.0 $\pm 0.2$                      |      |
| $\Delta h$               | 0 $\pm 1.0$ (at top of can)        |      |
| t                        | 0.7 $\pm 0.2$ (not including lead) |      |

### \*Optional Taping Specifications

10mm diameter available with P dim. = 12.7mm  
(P/N Suffix: TB12.7MMP)

12.5mm diameter available with P dim. = 15mm, P<sub>1</sub> = 5.0mm,  
P<sub>0</sub> = 15.0mm & P<sub>2</sub> = 7.5mm (P/N Suffix: TB15MMP)



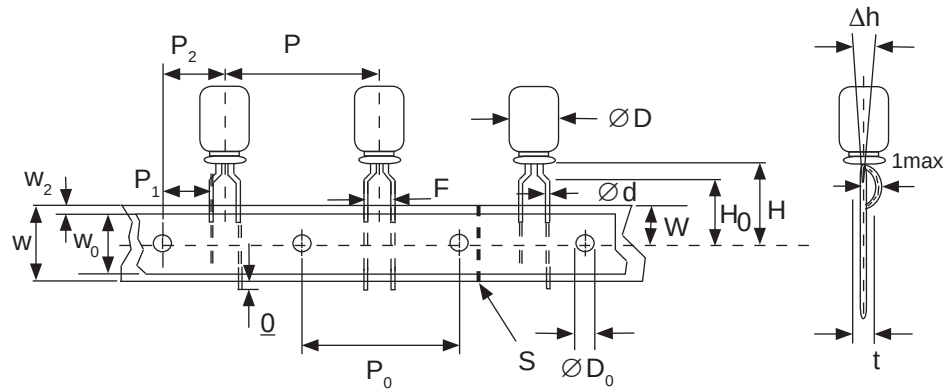
**NOTE:** ANODE (+) LEAD FEEDS OFF FIRST.  
FOR OPTION OF NEGATIVE (-) LEAD FIRST,  
SPECIFY "TBN".



## SPECIAL RADIAL TAPING (2.5mm LEAD SPACING, FORMED LEADS) TBF1

Taping Dimensions (mm)

| Case Dia.<br>(D $\phi$ ) | 4               | 5    |      |
|--------------------------|-----------------|------|------|
| Case Size                | 4x5             | 5x5  | 5x11 |
| Dim.                     | 4x7             | 5x7  |      |
| d $\phi \pm 0.05$        | 0.45            | 0.45 | 0.5  |
| H $\pm 0.75$             | 17.5            | 17.5 | 18.5 |
| H <sub>0</sub> $\pm 0.5$ | 16.0            | -    | -    |
| F                        | 2.5 -0.2 ~ +0.8 |      |      |
| P                        | 12.7 $\pm 1.0$  |      |      |
| P <sub>0</sub>           | 12.7 $\pm 0.2$  |      |      |
| P <sub>1</sub>           | 5.1 $\pm 0.5$   |      |      |
| P <sub>2</sub>           | 6.35 $\pm 1.0$  |      |      |
| W                        | 18.0 $\pm 0.5$  |      |      |
| W <sub>0</sub>           | 11.5 min.       |      |      |
| W <sub>1</sub>           | 9.0 $\pm 0.5$   |      |      |
| W <sub>2</sub>           | 0 ~ 1.5         |      |      |
| l                        | 1.0 max.        |      |      |
| D <sub>0</sub> $\phi$    | 4.0 $\pm 0.2$   |      |      |
| $\Delta h$               | 0 $\pm 1.0$     |      |      |
| t                        | 0.7 $\pm 0.2$   |      |      |

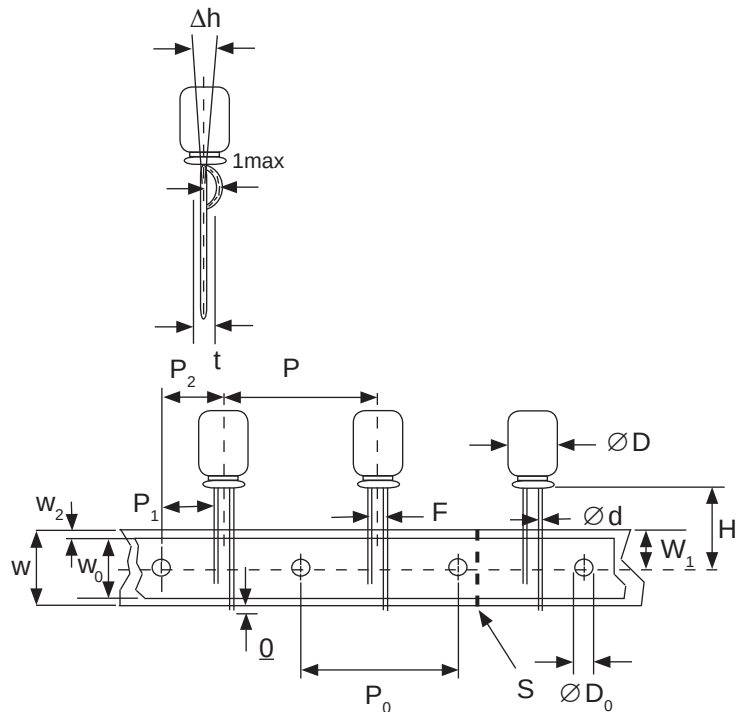


## SPECIAL STRAIGHT LEAD TAPING TBST

Taping Dimensions (mm)

| Case Dia.<br>(D $\phi$ ) | 4                                  | 5    |      | 6.3   |        | 8      |
|--------------------------|------------------------------------|------|------|-------|--------|--------|
| Case Size                | 4x5                                | 5x5  | 5x11 | 6.3x5 | 6.3x11 | 8x11.5 |
| Dim.                     | 4x7                                | 5x7  |      | 6.3x7 |        |        |
| d $\phi \pm 0.05$        | 0.45                               | 0.45 | 0.5  | 0.45  | 0.5    | 0.6    |
| H $\pm 0.75$             | 17.5                               | 17.5 | 18.5 | 17.5  | 18.5   | 20.0   |
| F +0.8 ~ -0.2            | 2.0*                               | 2.0  | 2.0  | 2.5   | 2.5    | 3.5    |
| P $\pm 1.0$              | 12.7 $\pm 0.2$                     |      |      |       |        |        |
| P <sub>0</sub>           | 12.7 $\pm 0.2$                     |      |      |       |        |        |
| P <sub>1</sub>           | 5.1                                | 5.1  | 5.1  | 5.1   | 5.1    | 4.6    |
| P <sub>2</sub>           | 6.35 $\pm 1.0$                     |      |      |       |        |        |
| W                        | 18.0 $\pm 0.5$                     |      |      |       |        |        |
| W <sub>0</sub>           | 11.5 min.                          |      |      |       |        |        |
| W <sub>1</sub>           | 9.0 $\pm 0.5$                      |      |      |       |        |        |
| W <sub>2</sub>           | 0 ~ 2.5                            |      |      |       |        |        |
| H <sub>0</sub>           | 16.0 $\pm 0.5$                     |      |      |       |        |        |
| l                        | 1.0 max.                           |      |      |       |        |        |
| D <sub>0</sub> $\phi$    | 4.0 $\pm 0.2$                      |      |      |       |        |        |
| $\Delta h$               | 0 $\pm 1.0$ (at top of can)        |      |      |       |        |        |
| t                        | 0.7 $\pm 0.2$ (not including lead) |      |      |       |        |        |

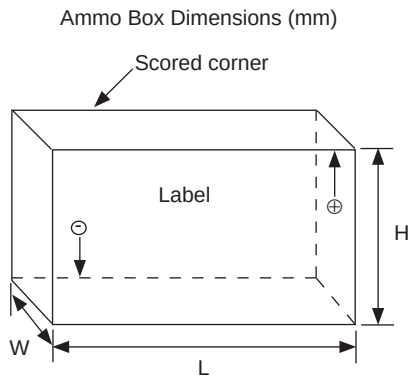
\* Parts with 4mm diameter are taped with a slight flare in the lead and a 2.0mm lead-space.



RADIAL TAPED PACKAGING

Ammo Box (Tape & Box) TB, TBF1, TBST

Size of box and component quantity



| Case Dia (Dφ)<br>or Case Size | Q'ty per<br>Box<br>(pcs) | Dim. L | Dim. H | Dim.<br>W |
|-------------------------------|--------------------------|--------|--------|-----------|
| 4x5, 4x7                      | 2,000                    | 331    | 175    | 43        |
| 5x5, 5x7                      | 2,000                    | 331    | 220    | 43        |
| 5x11                          | 2,000                    | 340    | 255    | 55        |
| 6.3x5, 6.3x7                  | 2,000                    | 331    | 280    | 43        |
| 6.3x11                        | 2,000                    | 331    | 280    | 48        |
| 8x11.5, 8x12.5                | 1,000                    | 335    | 235    | 53        |
| 10x12.5*                      | 500                      | 335    | 190    | 53        |
| 10x16*                        | 500                      | 335    | 300    | 53        |
| 10x20*                        | 500                      | 335    | 300    | 55        |
| 12.x20*                       | 500                      | 335    | 300    | 55        |
| 12.5x25*                      | 500                      | 335    | 300    | 61        |

\*Special Taping Consult Factory For Availability