

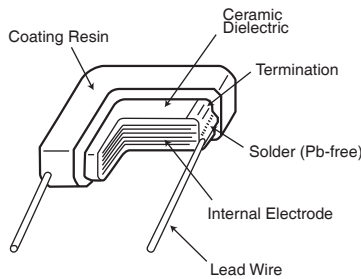
### ◆FEATURES

1. Small in size and wide capacitance range.  
Max. 470 $\mu$ F is available.
2. Temperature characteristic is X7R in EIA code.
3. Superior humidity characteristic and long life.
4. Excellent high frequency characteristic due to low ESR.
5. High rated ripple current.
6. 500V<sub>dc</sub> items are available.
7. Resin(UL94 V-0) used for coating.
8. Pb-free design(also ceramic dielectric)

### ◆APPLICATIONS

1. Smoothing circuit of switching mode AC-DC or DC-DC converter.
2. Noise suppressor for various kinds of equipments.
3. By-pass or decoupling circuits.
4. Automotive equipments.

### ◆CONSTRUCTION



### ◆RATINGS

|                                |  |
|--------------------------------|--|
| 1. Category Temperature Range  | -55 to +125°C                            |
| 2. Rated Voltage Range         | 25, 35, 50, 100, 250, 500V <sub>dc</sub> |
| 3. Rated Capacitance Range     | 0.1 to 470 $\mu$ F                       |
| 4. Rated Capacitance Tolerance | M( $\pm$ 20%), K( $\pm$ 10%)             |
| 5. Temperature Characteristics | X7R                                      |
| 6. Rated Ripple Current        | See No.5 on the following table          |

### ◆SPECIFICATIONS

| No.                             | Items                 |                            | Specification  | Test Condition   |                                  |                               |
|---------------------------------|-----------------------|----------------------------|--|--|----------------------------------|-------------------------------|
|                                 |                       |                            |  |  |                                  |                               |
| 1                               | Withstand Voltage     | Between Terminals          | No abnormality.  | Rated voltage  | Withstand voltage                |                               |
|                                 |                       | Terminals to Coating Resin |  | Less than 250V   | 250% of rated voltage            |                               |
|                                 |                       |                            |  | More than 250V<br>Less than 500V   | 100V +<br>150% of rated voltage  |                               |
|                                 |                       |                            |  | More than 500V   | 130% of rated voltage            |                               |
| Shall be applied for 5 seconds. |                       |                            |  |  |                                  |                               |
| 2                               | Insulation Resistance |                            | 100/C <sub>R</sub> (M $\Omega$ ) or 4000(M $\Omega$ ) whichever is less. | Rated voltage shall be applied for 60 $\pm$ 5 seconds at temperature 25 $\pm$ 2°C. |                                  |                               |
| 3                               | Rated Capacitance     |                            | Within specified tolerance.  |  | C <sub>R</sub> $\leq$ 10 $\mu$ F | C <sub>R</sub> >10 $\mu$ F    |
|                                 |                       |                            |  | Temperature  | 25 $\pm$ 2°C                     |                               |
| 4                               | Dissipation Factor    |                            | 5.0% maximum.  | Frequency  | 1 $\pm$ 0.1kHz                   | 120 $\pm$ 12Hz                |
|                                 |                       |                            |  | Voltage  | 1 $\pm$ 0.2V <sub>rms</sub>      | 0.5 $\pm$ 0.2V <sub>rms</sub> |

As customer requirement, Chemi-Con has submits the test results according to AEC-Q200 for Multilayer ceramic capacitors. Please contact us for more information.



# DIPPED RADIAL LEAD MULTILAYER CERAMIC CAPACITORS

**NTD** Series

## ◆ SPECIFICATIONS

| No.                | Items   |                  | Specification  | Test Condition  |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
|--------------------|---|------------------|--|---|------------------|------------------|--------------------|----------|------------------------------|-----------|----------|------------------|--------|---|------------------------------|------|---|------------------|--------|
| 5                  | Rated Ripple Current  |                  | See STANDARD RATINGS   | 10kHz to 1MHz (sine curve)<br>Ripple voltage $V_p$ shall be less than the rated voltage.  |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 6                  | Robustness of Terminations  | Tension          | No visible damage.   | The force applied shall be :<br><table border="1"> <thead> <tr> <th>Lead <math>\phi</math> (mm)</th> <th>Tensile(N)</th> <th>(sec.)</th> </tr> </thead> <tbody> <tr> <td>0.5 max.</td> <td>5</td> <td>10±1</td> </tr> <tr> <td>0.6 min.</td> <td>10</td> <td>10±1</td> </tr> </tbody> </table>  | Lead $\phi$ (mm) | Tensile(N)       | (sec.)             | 0.5 max. | 5                            | 10±1      | 0.6 min. | 10               | 10±1   |   |                              |      |   |                  |        |
|                    |   | Lead $\phi$ (mm) |  | Tensile(N)  | (sec.)           |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 0.5 max.           | 5   | 10±1             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 0.6 min.           | 10  | 10±1             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| Bending            | <table border="1"> <thead> <tr> <th>Lead <math>\phi</math> (mm)</th> <th>Bending(N)</th> <th>(kg)</th> </tr> </thead> <tbody> <tr> <td>0.5 max.</td> <td>2.5</td> <td>0.25</td> </tr> <tr> <td>0.6 min.</td> <td>5</td> <td>0.51</td> </tr> </tbody> </table><br>Time : 2times. | Lead $\phi$ (mm) | Bending(N)   | (kg)  | 0.5 max.         | 2.5              | 0.25               | 0.6 min. | 5                            | 0.51      |          |                  |        |   |                              |      |   |                  |        |
| Lead $\phi$ (mm)   | Bending(N)  | (kg)             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 0.5 max.           | 2.5   | 0.25             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 0.6 min.           | 5   | 0.51             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 7                  | Vibration   |                  | Appearance : No abnormality.<br>Capacitance : To meet the initial specification.<br>D.F. : To meet the initial specification.                              | Amplitude : 1.5mm<br>Frequency range : 10-55-10Hz (1 min)<br>Direction and time :<br>2 hours each to X, Y, Z axis. Total 6 hours.   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 8                  | Solderability   |                  | Min. 75% of surface of the termination shall be covered with new solder.   | <table border="1"> <thead> <tr> <th>Solder</th> <th>Pb Free</th> </tr> </thead> <tbody> <tr> <td>Solder Temperature</td> <td>245±5°C</td> </tr> <tr> <td>Dipping Time</td> <td>2±0.5sec.</td> </tr> </tbody> </table>   | Solder           | Pb Free          | Solder Temperature | 245±5°C  | Dipping Time                 | 2±0.5sec. |          |                  |        |   |                              |      |   |                  |        |
| Solder             | Pb Free   |                  |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| Solder Temperature | 245±5°C   |                  |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| Dipping Time       | 2±0.5sec.   |                  |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 9                  | Resistance to Soldering Heat  |                  | Appearance : No abnormality.<br>$\Delta C/C : \pm 15\%$<br>D.F. : To meet the initial specification.<br>I.R. : To meet the initial specification.          | Solder Temperature : 350±10°C<br>Dipping Time : 3±0.5 sec.<br>Depth : 1.5 to 2mm  |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 10                 | Temperature Cycle   |                  | Appearance : No abnormality.<br>$\Delta C/C : \pm 15\%$<br>D.F. : To meet the initial specification.<br>I.R. : To meet the initial specification.          | <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>(min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Min. Category temperature ±3</td> <td>30±3</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>3 max.</td> </tr> <tr> <td>3</td> <td>Max. Category temperature ±3</td> <td>30±3</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>3 max.</td> </tr> </tbody> </table><br>For 5 cycles for above temperature cycle. | Step             | Temperature (°C) | (min.)             | 1        | Min. Category temperature ±3 | 30±3      | 2        | Room temperature | 3 max. | 3 | Max. Category temperature ±3 | 30±3 | 4 | Room temperature | 3 max. |
| Step               | Temperature (°C)  | (min.)           |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 1                  | Min. Category temperature ±3  | 30±3             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 2                  | Room temperature  | 3 max.           |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 3                  | Max. Category temperature ±3  | 30±3             |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 4                  | Room temperature  | 3 max.           |  |   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 11                 | Humidity Load Life  |                  | Appearance : No abnormality.<br>$\Delta C/C : \pm 20\%$<br>D.F. : 10% maximum<br>I.R. : 25/ $C_R$ (M $\Omega$ ) or 1000(M $\Omega$ )<br>whichever is less. | Temperature : 40±2°C<br>Humidity : 90 to 95%RH<br>Voltage : Rated voltage<br>Time : 500± <sub>0</sub> <sup>24</sup> hours   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |
| 12                 | Endurance   |                  | Appearance : No abnormality.<br>$\Delta C/C : \pm 20\%$<br>D.F. : 10% maximum<br>I.R. : 50/ $C_R$ (M $\Omega$ ) or 1000(M $\Omega$ )<br>whichever is less. | Temperature : 125±3°C<br>Voltage : Rated voltage<br>Time : 1000± <sub>0</sub> <sup>48</sup> hours   |                  |                  |                    |          |                              |           |          |                  |        |   |                              |      |   |                  |        |

\* $C_R$  : Rated Capacitance( $\mu$ F)



# DIPPED RADIAL LEAD MULTILAYER CERAMIC CAPACITORS

## NTD Series

### ◆ STANDARD RATINGS

| Rated voltage (Vdc) | Rated Capacitance (μF) | Electrostatic Capacitance Temperature Characteristics | Dimensions(mm) |        |        |       |         | Maximum ripple current (Arms) | Part Number        | Taping Quantity per reel (pcs. / reel) |
|---------------------|------------------------|---|----------------|--------|--------|-------|---------|-------------------------------|--------------------|--|
|                     |                        |   | L max.         | W max. | T max. | F±0.8 | φd±0.05 |                               |                    |  |
| 25                  | 3.3                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD250B335□32A0T00 | 2,000                                  |
|                     | 4.7                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD250B475□32A0T00 | 2,000                                  |
|                     | 6.8                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD250B685□43A0T00 | 2,000                                  |
|                     | 10                     | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD250B106□43A0T00 | 2,000                                  |
|                     | 15                     | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD250B156□43A0T00 | 2,000                                  |
|                     | 15                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD250B156□55A0T00 | 2,000                                  |
|                     | 22                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD250B226□55A0T00 | 2,000                                  |
|                     | 33                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD250B336□55A0T00 | 2,000                                  |
|                     | 47                     | X7R   | 10.0           | 11.5   | 5.5    | 5.0   | 0.5     | 1.5                           | KTD250B476□76A0T00 | 1,000                                  |
|                     | 68                     | X7R   | 13.5           | 15.0   | 6.0    | 10.0  | 0.6     | 2.0                           | KTD250B686M80A0B00 | —                                      |
|                     | 100                    | X7R   | 13.5           | 15.0   | 8.0    | 10.0  | 0.6     | 2.0                           | KTD250B107M80A0B00 | —                                      |
|                     | 150                    | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD250B157M90A0B00 | —                                      |
| 220                 | X7R                    | 22.5  | 20.0           | 8.0    | 20.0   | 0.8   | 3.0     | KTD250B227M90A0B00            | —                  |  |
| 330                 | X7R                    | 28.5  | 20.0           | 8.0    | 25.0   | 0.8   | 4.0     | KTD250B337M99A0B00            | —                  |  |
| 470                 | X7R                    | 28.5  | 20.0           | 11.5   | 25.0   | 0.8   | 4.0     | KTD250B477M99A0B00            | —                  |  |
| 35                  | 3.3                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD350B335□32A0T00 | 2,000                                  |
|                     | 4.7                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD350B475□32A0T00 | 2,000                                  |
|                     | 6.8                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD350B685□43A0T00 | 2,000                                  |
|                     | 10                     | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD350B106□43A0T00 | 2,000                                  |
|                     | 15                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD350B156□55A0T00 | 2,000                                  |
|                     | 22                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD350B226□55A0T00 | 2,000                                  |
|                     | 33                     | X7R   | 10.0           | 11.5   | 5.0    | 5.0   | 0.5     | 1.5                           | KTD350B336□76A0T00 | 1,000                                  |
| 47                  | X7R                    | 10.0  | 11.5           | 5.5    | 5.0    | 0.5   | 1.5     | KTD350B476□76A0T00            | 1,000              |  |
| 50                  | 1.0                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD500B105□32A0T00 | 2,000                                  |
|                     | 1.5                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD500B155□32A0T00 | 2,000                                  |
|                     | 2.2                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD500B225□32A0T00 | 2,000                                  |
|                     | 3.3                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD500B335□32A0T00 | 2,000                                  |
|                     | 4.7                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD500B475□43A0T00 | 2,000                                  |
|                     | 6.8                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD500B685□43A0T00 | 2,000                                  |
|                     | 10                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD500B106□55A0T00 | 2,000                                  |
|                     | 15                     | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD500B156□55A0T00 | 2,000                                  |
|                     | 22                     | X7R   | 10.0           | 11.5   | 5.0    | 5.0   | 0.5     | 1.5                           | KTD500B226□76A0T00 | 1,500                                  |
|                     | 33                     | X7R   | 13.5           | 15.0   | 5.5    | 10.0  | 0.6     | 2.0                           | KTD500B336M80A0B00 | —                                      |
|                     | 47                     | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD500B476M90A0B00 | —                                      |
|                     | 68                     | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD500B686M90A0B00 | —                                      |
|                     | 100                    | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD500B107M90A0B00 | —                                      |
|                     | 150                    | X7R   | 28.5           | 20.0   | 7.5    | 25.0  | 0.8     | 4.0                           | KTD500B157M99A0B00 | —                                      |
| 220                 | X7R                    | 28.5  | 20.0           | 10.0   | 25.0   | 0.8   | 4.0     | KTD500B227M99A0B00            | —                  |  |
| 100                 | 0.33                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B334□32A0T00 | 2,000                                  |
|                     | 0.47                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B474□32A0T00 | 2,000                                  |
|                     | 0.68                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B684□32A0T00 | 2,000                                  |
|                     | 1.0                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B105□32A0T00 | 2,000                                  |
|                     | 1.5                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B155□32A0T00 | 2,000                                  |
|                     | 2.2                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD101B225□32A0T00 | 2,000                                  |
|                     | 1.5                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD101B155□43A0T00 | 2,000                                  |
|                     | 2.2                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD101B225□43A0T00 | 2,000                                  |
|                     | 3.3                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD101B335□43A0T00 | 2,000                                  |
|                     | 4.7                    | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD101B475□43A0T00 | 2,000                                  |
|                     | 3.3                    | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD101B335□55A0T00 | 2,000                                  |
|                     | 4.7                    | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD101B475□55A0T00 | 2,000                                  |
|                     | 6.8                    | X7R   | 7.5            | 9.0    | 4.7    | 5.0   | 0.5     | 1.0                           | KTD101B685□55A0T00 | 2,000                                  |
|                     | 6.8                    | X7R   | 10.0           | 11.5   | 5.0    | 5.0   | 0.5     | 1.5                           | KTD101B685□76A0T00 | 1,500                                  |
|                     | 10                     | X7R   | 13.5           | 15.0   | 5.0    | 10.0  | 0.6     | 2.0                           | KTD101B106M80A0B00 | —                                      |
|                     | 15                     | X7R   | 13.5           | 15.0   | 6.0    | 10.0  | 0.6     | 2.0                           | KTD101B156M80A0B00 | —                                      |
|                     | 22                     | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD101B226M90A0B00 | —                                      |
|                     | 33                     | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD101B336M90A0B00 | —                                      |
|                     | 47                     | X7R   | 28.5           | 20.0   | 7.5    | 25.0  | 0.8     | 4.0                           | KTD101B476M99A0B00 | —                                      |
|                     | 68                     | X7R   | 28.5           | 20.0   | 7.5    | 25.0  | 0.8     | 4.0                           | KTD101B686M99A0B00 | —                                      |
| 100                 | X7R                    | 28.5  | 20.0           | 9.0    | 25.0   | 0.8   | 4.0     | KTD101B107M99A0B00            | —                  |  |

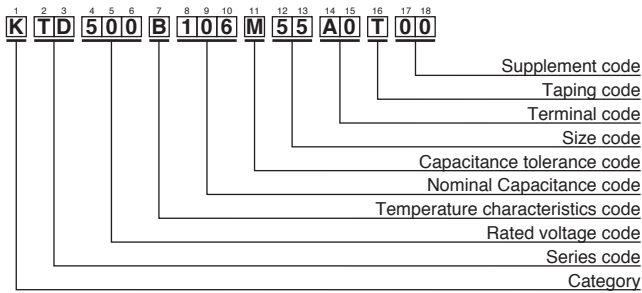
## NTD Series

### ◆ STANDARD RATINGS

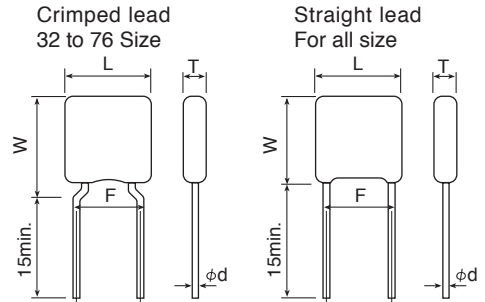
| Rated voltage (Vdc) | Rated Capacitance (μF) | Electrostatic Capacitance Temperature Characteristics | Dimensions(mm) |        |        |       |         | Maximum ripple current (Arms) | Part Number        | Taping Quantity per reel (pcs./reel) |
|---------------------|------------------------|---|----------------|--------|--------|-------|---------|-------------------------------|--------------------|--------------------------------------|
|                     |                        |   | L max.         | W max. | T max. | F±0.8 | φd±0.05 |                               |                    |                                      |
| 250                 | 0.1                    | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD251B104□32A0T00 | 2,000                                |
|                     | 0.15                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD251B154□32A0T00 | 2,000                                |
|                     | 0.22                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD251B224□32A0T00 | 2,000                                |
|                     | 0.33                   | X7R   | 5.0            | 6.0    | 3.5    | 5.0   | 0.5     | 0.3                           | KTD251B334□32A0T00 | 2,000                                |
|                     | 0.47                   | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD251B474□43A0T00 | 2,000                                |
|                     | 0.68                   | X7R   | 6.5            | 6.5    | 4.0    | 5.0   | 0.5     | 0.8                           | KTD251B684□43A0T00 | 2,000                                |
|                     | 1.0                    | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD251B105□55A0T00 | 2,000                                |
|                     | 1.5                    | X7R   | 7.5            | 9.0    | 4.5    | 5.0   | 0.5     | 1.0                           | KTD251B155□55A0T00 | 2,000                                |
|                     | 2.2                    | X7R   | 10.0           | 11.5   | 6.0    | 5.0   | 0.5     | 1.5                           | KTD251B225□76A0T00 | 1,000                                |
|                     | 2.2                    | X7R   | 13.5           | 15.0   | 5.0    | 10.0  | 0.6     | 2.0                           | KTD251B225M80A0B00 | —                                    |
|                     | 3.3                    | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD251B335M90A0B00 | —                                    |
|                     | 4.7                    | X7R   | 22.5           | 20.0   | 6.0    | 20.0  | 0.8     | 3.0                           | KTD251B475M90A0B00 | —                                    |
|                     | 6.8                    | X7R   | 28.5           | 20.0   | 7.5    | 25.0  | 0.8     | 4.0                           | KTD251B685M99A0B00 | —                                    |
| 10                  | X7R                    | 28.5  | 20.0           | 7.5    | 25.0   | 0.8   | 4.0     | KTD251B106M99A0B00            | —                  |                                      |
| 15                  | X7R                    | 28.5  | 20.0           | 7.5    | 25.0   | 0.8   | 4.0     | KTD251B156M99A0B00            | —                  |                                      |
| 500                 | 0.47                   | X7R   | 7.5            | 9.0    | 3.5    | 5.0   | 0.5     | 0.8                           | KTD501B474□55A0T00 | 2,000                                |
|                     | 0.56                   | X7R   | 7.5            | 9.0    | 3.5    | 5.0   | 0.5     | 0.8                           | KTD501B564□55A0T00 | 2,000                                |
|                     | 0.68                   | X7R   | 10.0           | 11.5   | 3.4    | 5.0   | 0.5     | 1.0                           | KTD501B684□76A0T00 | 1,500                                |
|                     | 1.0                    | X7R   | 10.0           | 11.5   | 3.8    | 5.0   | 0.5     | 1.0                           | KTD501B105□76A0T00 | 1,500                                |
|                     | 1.2                    | X7R   | 10.0           | 11.5   | 4.2    | 5.0   | 0.5     | 1.0                           | KTD501B125□76A0T00 | 1,500                                |

※ The square (□) in part numbers is replaced by a capacitance tolerance code: 'K' when ±10%, or 'M' when ±20%  
 ※ Please consult with us when you consider the rating other than a standard table.

### ◆ PART NUMBERING SYSTEM



### ◆ DIMENSIONS



Please refer to "Part Numbering System" of the beginning of a catalog for the details.



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.  
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