

## Dipped, Radial Leaded, Solid Tantalum Capacitors



The Type TDL, like the Type TDC, is a low cost alternative to molded solid tantalum capacitors, and is constructed in a tough, radial dipped flame retardant plastic case. It assures the user that it is a top performer with such attributes as low DCL, Low ESR, low impedance and a great value with low in-place cost. The 0.10" and 0.20" lead spacings of the TDL are what distinguishes it from the Type TDC.

### Highlights

- ♦ Tough plastic case
- ♦ Low DCL
- ♦ Low ESR and impedance
- ♦ Low cost
- ♦ Temperature stable
- ♦ UL94VO flammability rating
- ♦ Resistant to shock and vibration

### Specifications

**Capacitance Range:** 0.10  $\mu$ F to 330  $\mu$ F

**Voltage Range:** 6 WVdc to 50 WVdc at 85 °C

**Tolerance:**  $\pm 10\%$ ,  $\pm 20\%$  ( $\pm 5\%$  by Special Order)

**Operating Temperature Range:**  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  (with proper derating)

**DC Leakage:**

- $+25^{\circ}\text{C}$  - See ratings limit
- $+85^{\circ}\text{C}$  - 10 x Ratings limit
- $+125^{\circ}\text{C}$  - 12.5 x Ratings limit

**Capacitance Change Maximum:**

- $-10\%$  @  $-55^{\circ}\text{C}$
- $+10\%$  @  $+85^{\circ}\text{C}$
- $+12\%$  @  $+125^{\circ}\text{C}$

**Reverse Voltage (Non-continuous):**

- 15% of rated voltage @  $25^{\circ}\text{C}$
- 5% of rated voltage @  $85^{\circ}\text{C}$
- 1% of rated voltage @  $125^{\circ}\text{C}$

**Reel Packaging:**

| Case Code | Quantity Per Reel |
|-----------|-------------------|
| A         | 1,500             |
| B         | 1,500             |
| C         | 1,500             |
| D         | 1,000             |
| E         | 1,000             |
| F         | 1,000             |

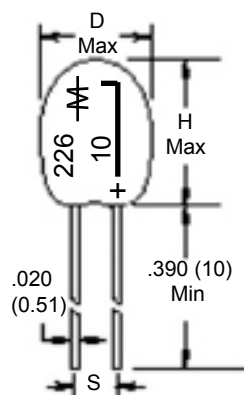
**RoHS Compliant:**



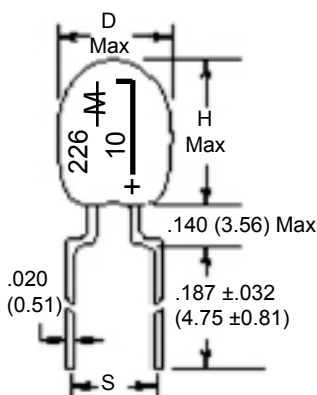
Complies with the EU Directive 2002/95/EC requirement restricting the use of Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr(VI)), PolyBrominated Biphenyls (PBB) and PolyBrominated Diphenyl Ethers (PBDE).

# Type TDL Solid Tantalum Capacitors

## Capacitor Outline Drawing



Lead Form  
Codes S1, M1



Lead Form  
Code M2

| Dimensions - Inches (Millimeters) |              |              |                        |      |                   |
|-----------------------------------|--------------|--------------|------------------------|------|-------------------|
| Case Code                         | D (Max.)     | H (Max.)     | Leads                  |      | Quantity Per Reel |
|                                   |              |              | S                      | Code |                   |
| A                                 | .0180 (4.57) | .280 (7.11)  | .100 (2.54) (Standard) | S1   | 1,500             |
|                                   |              |              | .200 (5.08) (Special)  | M2   |                   |
| B                                 | .200 (5.08)  | .300 (7.62)  | .100 (2.54) (Standard) | S1   | 1,500             |
|                                   |              |              | .200 (5.08) (Special)  | M2   |                   |
| C                                 | .260 (6.60)  | .360 (9.14)  | .100 (2.54) (Standard) | S1   | 1,500             |
|                                   |              |              | .200 (5.08) (Special)  | M2   |                   |
| D                                 | .340 (8.64)  | .400 (10.16) | .100 (2.54) (Standard) | S1   | 1,000             |
|                                   |              |              | .200 (5.08) (Special)  | M2   |                   |
| E                                 | .400 (10.16) | .560 (14.22) | .200 (5.08) (Standard) | M1   | 1,000             |
| F                                 | .440 (11.18) | .680 (17.27) | .200 (5.08) (Standard) | M1   | 1,000             |

Listed Catalog Numbers reflect standard lead forms as indicated below.

M2 lead form and lead lengths of .500 (12.7) minimum are available by special order.

## Ratings

| Cap<br>( $\mu$ F)                                             | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>( $\mu$ A) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|---------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------------|-------------------------------------|
| 6.3 WVdc; 8 Vdc Surge @ 85 °C<br>4 WVdc; 5 Vdc Surge @ 125 °C |                        |              |                        |                                      |                                     |
| 3.3                                                           | TDL335*006S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 3.9                                                           | TDL395*006S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 4.7                                                           | TDL475*006S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 5.6                                                           | TDL565*006S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 6.8                                                           | TDL685*006S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 8.2                                                           | TDL825*006S1B          | B            | 0.1                    | 0.5                                  | 6                                   |
| 10                                                            | TDL106*006S1B          | B            | 0.1                    | 0.5                                  | 6                                   |
| 12                                                            | TDL126*006S1B          | B            | 0.1                    | 0.6                                  | 6                                   |
| 15                                                            | TDL156*006S1B          | B            | 0.1                    | 0.7                                  | 6                                   |
| 18                                                            | TDL186*006S1B          | B            | 0.1                    | 0.9                                  | 6                                   |
| 22                                                            | TDL226*006S1C          | C            | 0.1                    | 1.1                                  | 6                                   |
| 27                                                            | TDL276*006S1C          | C            | 0.1                    | 1.3                                  | 6                                   |
| 33                                                            | TDL336*006S1C          | C            | 0.1                    | 1.6                                  | 6                                   |
| 39                                                            | TDL396*006S1C          | C            | 0.1                    | 1.9                                  | 6                                   |
| 47                                                            | TDL476*006S1D          | D            | 0.1                    | 2.3                                  | 6                                   |
| 56                                                            | TDL566*006S1D          | D            | 0.1                    | 2.7                                  | 6                                   |
| 68                                                            | TDL686*006S1D          | D            | 0.1                    | 3.3                                  | 6                                   |
| 82                                                            | TDL826*006S1D          | D            | 0.1                    | 3.9                                  | 8                                   |
| 100                                                           | TDL107*006S1D          | D            | 0.1                    | 4.8                                  | 8                                   |
| 120                                                           | TDL127*006M1D          | D            | 0.2                    | 5.8                                  | 8                                   |
| 150                                                           | TDL157*006M1E          | E            | 0.2                    | 7.2                                  | 8                                   |
| 180                                                           | TDL187*006M1E          | E            | 0.2                    | 8.6                                  | 8                                   |
| 220                                                           | TDL227*006M1E          | E            | 0.2                    | 10                                   | 8                                   |
| 270                                                           | TDL277*006M1E          | E            | 0.2                    | 10                                   | 8                                   |
| 330                                                           | TDL337*006M1F          | F            | 0.2                    | 10                                   | 8                                   |

| Cap<br>( $\mu$ F)                                             | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>( $\mu$ A) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|---------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------------|-------------------------------------|
| 10 WVdc; 13 Vdc Surge @ 85 °C<br>7 WVdc; 9 Vdc Surge @ 125 °C |                        |              |                        |                                      |                                     |
| 2.2                                                           | TDL225*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 2.7                                                           | TDL275*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 3.3                                                           | TDL335*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 3.9                                                           | TDL395*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 4.7                                                           | TDL475*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 5.6                                                           | TDL565*010S1A          | A            | 0.1                    | 0.5                                  | 5                                   |
| 6.8                                                           | TDL685*010S1B          | B            | 0.1                    | 0.5                                  | 5                                   |
| 8.2                                                           | TDL825*010S1B          | B            | 0.1                    | 0.7                                  | 6                                   |
| 10                                                            | TDL106*010S1B          | B            | 0.1                    | 0.8                                  | 6                                   |
| 12                                                            | TDL126*010S1C          | C            | 0.1                    | 1.0                                  | 6                                   |
| 15                                                            | TDL156*010S1C          | C            | 0.1                    | 1.2                                  | 6                                   |
| 18                                                            | TDL186*010S1C          | C            | 0.1                    | 1.4                                  | 6                                   |
| 22                                                            | TDL226*010S1C          | C            | 0.1                    | 1.8                                  | 6                                   |
| 27                                                            | TDL276*010S1C          | C            | 0.1                    | 2.2                                  | 6                                   |
| 33                                                            | TDL336*010S1D          | D            | 0.1                    | 2.6                                  | 6                                   |
| 39                                                            | TDL396*010S1D          | D            | 0.1                    | 3.1                                  | 6                                   |
| 47                                                            | TDL476*010S1D          | D            | 0.1                    | 3.8                                  | 6                                   |
| 56                                                            | TDL566*010S1D          | D            | 0.1                    | 4.5                                  | 6                                   |
| 68                                                            | TDL686*010S1D          | D            | 0.1                    | 5.4                                  | 6                                   |
| 82                                                            | TDL826*010M1E          | E            | 0.2                    | 6.6                                  | 8                                   |
| 100                                                           | TDL107*010M1E          | E            | 0.2                    | 8.0                                  | 8                                   |
| 120                                                           | TDL127*010M1E          | E            | 0.2                    | 9.6                                  | 8                                   |
| 150                                                           | TDL157*010M1E          | E            | 0.2                    | 10.0                                 | 8                                   |
| 180                                                           | TDL187*010M1E          | E            | 0.2                    | 10.0                                 | 8                                   |
| 220                                                           | TDL227*010M1F          | F            | 0.2                    | 10.0                                 | 8                                   |

\* Indicates capacitance tolerance: K =  $\pm 10\%$ , M =  $\pm 20\%$ , (J =  $\pm 5\%$ , Special Order)

CDE reserves the right to substitute a tighter tolerance, higher voltage capacitor within the same case size.

# Type TDL Solid Tantalum Capacitors

## Ratings

| Cap<br>(μF)                                                     | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>(μA) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|-----------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------|-------------------------------------|
| 16 WVdc; 20 Vdc Surge @ 85 °C<br>10 WVdc; 12 Vdc Surge @ 125 °C |                        |              |                        |                                |                                     |
| 1.5                                                             | TDL155*016S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 1.8                                                             | TDL185*016S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.2                                                             | TDL225*016S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.7                                                             | TDL275*016S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.3                                                             | TDL335*016S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.9                                                             | TDL395*016S1B          | B            | 0.1                    | 0.5                            | 5                                   |
| 4.7                                                             | TDL475*016S1B          | B            | 0.1                    | 0.6                            | 5                                   |
| 5.6                                                             | TDL565*016S1B          | B            | 0.1                    | 0.7                            | 5                                   |
| 6.8                                                             | TDL685*016S1B          | B            | 0.1                    | 0.9                            | 5                                   |
| 8.2                                                             | TDL825*016S1C          | C            | 0.1                    | 1.0                            | 6                                   |
| 10                                                              | TDL106*016S1C          | C            | 0.1                    | 1.3                            | 6                                   |
| 12                                                              | TDL126*016S1C          | C            | 0.1                    | 1.5                            | 6                                   |
| 15                                                              | TDL156*016S1C          | C            | 0.1                    | 1.8                            | 6                                   |
| 18                                                              | TDL186*016S1C          | C            | 0.1                    | 2.2                            | 6                                   |
| 22                                                              | TDL226*016S1D          | D            | 0.1                    | 2.6                            | 6                                   |
| 27                                                              | TDL276*016S1D          | D            | 0.1                    | 3.2                            | 6                                   |
| 33                                                              | TDL336*016S1D          | D            | 0.1                    | 4.0                            | 6                                   |
| 39                                                              | TDL396*016M1E          | E            | 0.2                    | 4.7                            | 6                                   |
| 47                                                              | TDL476*016M1E          | E            | 0.2                    | 5.6                            | 6                                   |
| 56                                                              | TDL566*016M1E          | E            | 0.2                    | 6.8                            | 6                                   |
| 68                                                              | TDL686*016M1E          | E            | 0.2                    | 8.2                            | 6                                   |
| 82                                                              | TDL826*016M1E          | E            | 0.2                    | 9.8                            | 8                                   |
| 100                                                             | TDL107*016M1F          | F            | 0.2                    | 10                             | 8                                   |
| 120                                                             | TDL127*016M1F          | F            | 0.2                    | 10                             | 8                                   |
| 150                                                             | TDL157*016M1F          | F            | 0.2                    | 10                             | 8                                   |
| 20 WVdc; 26 Vdc Surge @ 85 °C<br>13 WVdc; 16 Vdc Surge @ 125 °C |                        |              |                        |                                |                                     |
| 1.5                                                             | TDL155*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 1.8                                                             | TDL185*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.2                                                             | TDL225*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.7                                                             | TDL275*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.3                                                             | TDL335*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.9                                                             | TDL395*020S1B          | B            | 0.1                    | 0.6                            | 5                                   |
| 4.7                                                             | TDL475*020S1B          | B            | 0.1                    | 0.8                            | 5                                   |
| 5.6                                                             | TDL565*020S1B          | B            | 0.1                    | 0.9                            | 5                                   |
| 6.8                                                             | TDL685*020S1B          | B            | 0.1                    | 1.1                            | 5                                   |
| 8.2                                                             | TDL825*020S1B          | B            | 0.1                    | 1.3                            | 6                                   |

| Cap<br>(μF)                                                         | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>(μA) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|---------------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------|-------------------------------------|
| 20 WVdc; 26 Vdc Surge @ 85 °C<br>13 WVdc; 16 Vdc Surge @ 125 °C     |                        |              |                        |                                |                                     |
| 1.5                                                                 | TDL155*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 1.8                                                                 | TDL185*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.2                                                                 | TDL225*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.7                                                                 | TDL275*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.3                                                                 | TDL335*020S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 3.9                                                                 | TDL395*020S1B          | B            | 0.1                    | 0.6                            | 5                                   |
| 4.7                                                                 | TDL475*020S1B          | B            | 0.1                    | 0.8                            | 5                                   |
| 5.6                                                                 | TDL565*020S1B          | B            | 0.1                    | 0.9                            | 5                                   |
| 6.8                                                                 | TDL685*020S1B          | B            | 0.1                    | 1.1                            | 5                                   |
| 8.2                                                                 | TDL825*020S1B          | B            | 0.1                    | 1.3                            | 6                                   |
| 10                                                                  | TDL106*020S1C          | C            | 0.1                    | 1.6                            | 6                                   |
| 12                                                                  | TDL126*020S1C          | C            | 0.1                    | 1.9                            | 6                                   |
| 15                                                                  | TDL156*020S1C          | C            | 0.1                    | 2.4                            | 6                                   |
| 18                                                                  | TDL186*020S1C          | C            | 0.1                    | 2.9                            | 6                                   |
| 22                                                                  | TDL226*020S1C          | C            | 0.1                    | 3.5                            | 6                                   |
| 27                                                                  | TDL276*020M1E          | E            | 0.2                    | 4.3                            | 6                                   |
| 33                                                                  | TDL336*020M1E          | E            | 0.2                    | 5.3                            | 6                                   |
| 39                                                                  | TDL396*020M1E          | E            | 0.2                    | 6.2                            | 6                                   |
| 47                                                                  | TDL476*020M1E          | E            | 0.2                    | 7.5                            | 6                                   |
| 56                                                                  | TDL566*020M1E          | E            | 0.2                    | 9                              | 6                                   |
| 68                                                                  | TDL686*020M1E          | E            | 0.2                    | 10                             | 6                                   |
| 82                                                                  | TDL826*020M1F          | F            | 0.2                    | 10                             | 8                                   |
| 100                                                                 | TDL107*020M1F          | F            | 0.2                    | 10                             | 8                                   |
| 25 WVdc; 32 Vdc Surge @ 85 °C<br>16.5 WVdc; 21.5 Vdc Surge @ 125 °C |                        |              |                        |                                |                                     |
| 1.0                                                                 | TDL105*025S1A          | A            | 0.1                    | 0.5                            | 3                                   |
| 1.2                                                                 | TDL125*025S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 1.5                                                                 | TDL155*025S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 1.8                                                                 | TDL185*025S1A          | A            | 0.1                    | 0.5                            | 5                                   |
| 2.2                                                                 | TDL225*025S1B          | B            | 0.1                    | 0.5                            | 5                                   |
| 2.7                                                                 | TDL275*025S1B          | B            | 0.1                    | 0.5                            | 5                                   |
| 3.3                                                                 | TDL335*025S1B          | B            | 0.1                    | 0.7                            | 5                                   |
| 3.9                                                                 | TDL395*025S1B          | B            | 0.1                    | 0.8                            | 5                                   |
| 4.7                                                                 | TDL475*025S1C          | C            | 0.1                    | 0.9                            | 5                                   |
| 5.6                                                                 | TDL565*025S1C          | C            | 0.1                    | 1.1                            | 5                                   |
| 6.8                                                                 | TDL685*025S1C          | C            | 0.1                    | 1.4                            | 5                                   |
| 8.2                                                                 | TDL825*025S1C          | C            | 0.1                    | 1.6                            | 6                                   |

\* Indicates capacitance tolerance: K = ±10%, M = ±20%, (J = ±5%, Special Order)

CDE reserves the right to substitute a tighter tolerance, higher voltage capacitor within the same case size.

# Type TDL Solid Tantalum Capacitors

## Ratings

| Cap<br>( $\mu$ F)                                                   | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>( $\mu$ A) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|---------------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------------|-------------------------------------|
| 25 WVdc; 32 Vdc Surge @ 85 °C<br>16.5 WVdc; 21.5 Vdc Surge @ 125 °C |                        |              |                        |                                      |                                     |
| 10                                                                  | TDL106*025S1C          | C            | 0.1                    | 2.0                                  | 6                                   |
| 12                                                                  | TDL126*025S1C          | C            | 0.1                    | 2.4                                  | 6                                   |
| 15                                                                  | TDL156*025S1D          | D            | 0.1                    | 3.0                                  | 6                                   |
| 18                                                                  | TDL186*025S1D          | D            | 0.1                    | 3.6                                  | 6                                   |
| 22                                                                  | TDL226*025S1D          | D            | 0.1                    | 4.4                                  | 6                                   |
| 27                                                                  | TDL276*025M1E          | E            | 0.2                    | 5.4                                  | 6                                   |
| 33                                                                  | TDL336*025M1E          | E            | 0.2                    | 6.6                                  | 6                                   |
| 39                                                                  | TDL396*025M1E          | E            | 0.2                    | 7.8                                  | 6                                   |
| 47                                                                  | TDL476*025M1E          | E            | 0.2                    | 9.4                                  | 6                                   |
| 56                                                                  | TDL566*025M1E          | E            | 0.2                    | 10.0                                 | 6                                   |
| 68                                                                  | TDL686*025M1E          | F            | 0.2                    | 10.0                                 | 6                                   |
| 35 WVdc; 46 Vdc Surge @ 85 °C<br>23 WVdc; 28 Vdc Surge @ 125 °C     |                        |              |                        |                                      |                                     |
| .10                                                                 | TDL104*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .12                                                                 | TDL124*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .15                                                                 | TDL154*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .18                                                                 | TDL184*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .22                                                                 | TDL224*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .27                                                                 | TDL274*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .33                                                                 | TDL334*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .39                                                                 | TDL394*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .47                                                                 | TDL474*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .56                                                                 | TDL564*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .68                                                                 | TDL684*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .82                                                                 | TDL824*035S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| 1.0                                                                 | TDL105*035S1B          | B            | 0.1                    | 0.5                                  | 3                                   |
| 1.2                                                                 | TDL125*035S1B          | B            | 0.1                    | 0.5                                  | 5                                   |
| 1.5                                                                 | TDL155*035S1B          | B            | 0.1                    | 0.5                                  | 5                                   |
| 1.8                                                                 | TDL185*035S1B          | B            | 0.1                    | 0.5                                  | 5                                   |
| 2.2                                                                 | TDL225*035S1C          | C            | 0.1                    | 0.6                                  | 5                                   |
| 2.7                                                                 | TDL275*035S1C          | C            | 0.1                    | 0.7                                  | 5                                   |
| 3.3                                                                 | TDL335*035S1C          | C            | 0.1                    | 0.9                                  | 5                                   |
| 3.9                                                                 | TDL395*035S1C          | C            | 0.1                    | 1.0                                  | 5                                   |
| 4.7                                                                 | TDL475*035S1D          | D            | 0.1                    | 1.3                                  | 5                                   |
| 5.6                                                                 | TDL565*035S1D          | D            | 0.1                    | 1.6                                  | 5                                   |
| 6.8                                                                 | TDL685*035S1D          | D            | 0.1                    | 1.9                                  | 5                                   |
| 8.2                                                                 | TDL825*035S1D          | D            | 0.1                    | 2.3                                  | 6                                   |
| 10                                                                  | TDL106*035S1D          | D            | 0.1                    | 2.8                                  | 6                                   |
| 12                                                                  | TDL126*035M1E          | E            | 0.2                    | 3.4                                  | 6                                   |
| 15                                                                  | TDL156*035M1E          | E            | 0.2                    | 4.2                                  | 6                                   |

| Cap<br>( $\mu$ F)                                               | Catalog<br>Part Number | Case<br>Code | Lead<br>Spacing<br>(S) | Max.<br>DCL<br>@ +25°C<br>( $\mu$ A) | Max. DF<br>@ +25°C<br>120 Hz<br>(%) |
|-----------------------------------------------------------------|------------------------|--------------|------------------------|--------------------------------------|-------------------------------------|
| 35 WVdc; 46 Vdc Surge @ 85 °C<br>23 WVdc; 28 Vdc Surge @ 125 °C |                        |              |                        |                                      |                                     |
| 18                                                              | TDL186*035M1E          | E            | 0.2                    | 5.0                                  | 6                                   |
| 22                                                              | TDL226*035M1E          | E            | 0.2                    | 6.2                                  | 6                                   |
| 27                                                              | TDL276*035M1E          | E            | 0.2                    | 7.6                                  | 6                                   |
| 33                                                              | TDL336*035M1F          | F            | 0.2                    | 9.2                                  | 6                                   |
| 39                                                              | TDL396*035M1F          | F            | 0.2                    | 10.0                                 | 6                                   |
| 47                                                              | TDL476*035M1F          | F            | 0.2                    | 10.0                                 | 6                                   |
| 50 WVdc; 65 Vdc Surge @ 85 °C<br>33 WVdc; 40 Vdc Surge @ 125 °C |                        |              |                        |                                      |                                     |
| .10                                                             | TDL104*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .12                                                             | TDL124*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .15                                                             | TDL154*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .18                                                             | TDL184*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .22                                                             | TDL224*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .27                                                             | TDL274*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .33                                                             | TDL334*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .39                                                             | TDL394*050S1A          | A            | 0.1                    | 0.5                                  | 3                                   |
| .47                                                             | TDL474*050S1B          | B            | 0.1                    | 0.5                                  | 3                                   |
| .56                                                             | TDL564*050S1B          | B            | 0.1                    | 0.5                                  | 3                                   |
| .68                                                             | TDL684*050S1B          | B            | 0.1                    | 0.5                                  | 3                                   |
| .82                                                             | TDL824*050S1B          | B            | 0.1                    | 0.5                                  | 3                                   |
| 1.0                                                             | TDL105*050S1C          | C            | 0.1                    | 0.5                                  | 3                                   |
| 1.2                                                             | TDL125*050S1C          | C            | 0.1                    | 0.5                                  | 5                                   |
| 1.5                                                             | TDL155*050S1C          | C            | 0.1                    | 0.6                                  | 5                                   |
| 1.8                                                             | TDL185*050S1C          | C            | 0.1                    | 0.7                                  | 5                                   |
| 2.2                                                             | TDL225*050S1D          | D            | 0.1                    | 0.9                                  | 5                                   |
| 2.7                                                             | TDL275*050S1D          | D            | 0.1                    | 1.1                                  | 5                                   |
| 3.3                                                             | TDL335*050S1D          | D            | 0.1                    | 1.3                                  | 5                                   |
| 3.9                                                             | TDL395*050S1D          | D            | 0.1                    | 1.6                                  | 5                                   |
| 4.7                                                             | TDL475*050S1D          | D            | 0.1                    | 1.9                                  | 5                                   |
| 5.6                                                             | TDL565*050S1D          | D            | 0.1                    | 2.2                                  | 5                                   |
| 6.8                                                             | TDL685*050M1F          | F            | 0.2                    | 2.7                                  | 5                                   |
| 8.2                                                             | TDL825*050M1F          | F            | 0.2                    | 3.3                                  | 6                                   |
| 10                                                              | TDL106*050M1F          | F            | 0.2                    | 4.0                                  | 6                                   |
| 12                                                              | TDL126*050M1F          | F            | 0.2                    | 4.8                                  | 6                                   |
| 15                                                              | TDL156*050M1F          | F            | 0.2                    | 6.0                                  | 6                                   |
| 18                                                              | TDL186*050M1F          | F            | 0.2                    | 7.2                                  | 6                                   |
| 22                                                              | TDL226*050M1F          | F            | 0.2                    | 8.8                                  | 6                                   |

\* Indicates capacitance tolerance: K =  $\pm 10\%$ , M =  $\pm 20\%$ , (J =  $\pm 5\%$ , Special Order)

## Part Numbering System

| TDL    | 106                | M             | 050           | M                  | 1                         | F         | -F                      |
|--------|--------------------|---------------|---------------|--------------------|---------------------------|-----------|-------------------------|
| Series | Capacitance        | Tolerance     | Voltage       | Lead Spacing       | Lead Length               | Case Code | RoHS Compliant          |
| TDL    | 104 = 0.10 $\mu$ F | J = $\pm$ 5%  | 006 = 6.3 Vdc | S = .100           | 1 = Straight<br>.390 Long | A         | -F =<br>Compliant       |
|        | 105 = 1.0 $\mu$ F  | K = $\pm$ 10% | 010 = 10 Vdc  | M = .200           |                           | B         |                         |
|        | 225 = 2.2 $\mu$ F  | M = $\pm$ 20% | 015 = 15 dc   | T = Tape &<br>Reel | 2 = Straight<br>.187 Long | C         | Blank= Not<br>Compliant |
|        | 186 = 18 $\mu$ F   |               | 020 = 20 Vdc  |                    |                           | D         |                         |
|        | 107 = 100 $\mu$ F  |               | 025 = 25 Vdc  |                    |                           | E         |                         |
|        |                    |               | 035 = 35 Vdc  |                    |                           | F         |                         |
|        |                    |               | 050 = 50 Vdc  |                    |                           |           |                         |

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