

Type TDC Solid Tantalum Capacitors

Dipped, Radial Leaded, Solid Tantalum Capacitors



As a low cost alternative to molded solid tantalum capacitors, the Type TDC, constructed in a tough, radial dipped flame retardant plastic case, 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 Type TDC is high shock and vibration resistant and is available in bulk or on radial tape and reel.

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 μ F to 330 μ F
Voltage Range: 6 WVdc to 50 WVdc at 85 °C
Tolerance: \pm 10%, \pm 20%
Operating Temperature Range: -55 °C to +125 °C (with proper derating)

DC Leakage: +25 °C - See ratings limit
+85 °C - 10 x ratings limit
+125 °C - 12.5 x ratings limit

Capacitance Change Maximum: -10% @ -55 °C
+10% @ +85 °C
+12% @ +125 °C

Reverse Voltage (Non-continuous): 15% of rated voltage @ 25 °C
5% of rated voltage @ 85 °C
1% of rated voltage @ 125 °C

Reel Packaging:

| Case Code | Quantity per Reel |
|-----------|-------------------|
| E | 1,000 |
| F | 1,000 |
| G | 1,000 |



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).

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Capacitor Outline Drawing



| Dimensions - Inches (Millimeters) | | | | |
|-----------------------------------|-------------|--------------|------------------------|------|
| Case Code | D (Max.) | H (Max.) | Leads | |
| | | | S | Code |
| E | .175 (4.45) | .350 (8.89) | .125 (3.17) (Standard) | N |
| | | | .250 (6.35) (Special) | W |
| F | .250 (6.35) | .500 (12.7) | .125 (3.17) (Standard) | N |
| | | | .250 (6.35) (Special) | W |
| G | .350 (8.89) | .650 (16.51) | .250 (6.35) (Special) | W |

E and F Case Codes:
Lead Spacing = $.125 \pm .025$
($3.17 \pm .64$)

G Case Code:
Lead Spacing = $.250 \pm .025$
($6.34 \pm .64$)

Ratings

| Cap (μF) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μA) | Max. DF @ +25 °C 120 Hz (%) | Cap (μF) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μA) | Max. DF @ +25 °C 120 Hz (%) |
|---|---------------------|-----------|------------------|------------------------|-----------------------------|---|---------------------|-----------|------------------|------------------------|-----------------------------|
| 6 WVdc; 8 Vdc Surge @ 85 °C 4 WVdc; 5 Vdc Surge @ 125 °C | | | | | | 10 WVdc; 13 Vdc Surge @ 85 °C 7 WVdc; 9 Vdc Surge @ 125 °C | | | | | |
| 3.3 | TDC335*006NSE-F | E | 0.125 | 0.5 | 5 | 2.2 | TDC225*010NSE-F | E | 0.125 | 0.5 | 5 |
| 3.9 | TDC395*006NSE-F | E | 0.125 | 0.5 | 5 | 2.7 | TDC275*010NSE-F | E | 0.125 | 0.5 | 5 |
| 4.7 | TDC475*006NSE-F | E | 0.125 | 0.5 | 5 | 3.3 | TDC335*010NSE-F | E | 0.125 | 0.5 | 5 |
| 5.6 | TDC565*006NSE-F | E | 0.125 | 0.5 | 5 | 3.9 | TDC395*010NSE-F | E | 0.125 | 0.5 | 5 |
| 6.8 | TDC685*006NSE-F | E | 0.125 | 0.5 | 5 | 4.7 | TDC475*010NSE-F | E | 0.125 | 0.5 | 5 |
| 8.2 | TDC825*006NSE-F | E | 0.125 | 0.5 | 6 | 5.6 | TDC565*010NSE-F | E | 0.125 | 0.5 | 5 |
| 10 | TDC106*006NSE-F | E | 0.125 | 0.5 | 6 | 6.8 | TDC685*010NSE-F | E | 0.125 | 0.5 | 5 |
| 12 | TDC126*006NSE-F | E | 0.125 | 0.6 | 6 | 8.2 | TDC825*010NSE-F | E | 0.125 | 0.7 | 6 |
| 15 | TDC156*006NSF-F | F | 0.125 | 0.7 | 6 | 10 | TDC106*010NSF-F | F | 0.125 | 0.8 | 6 |
| 18 | TDC186*006NSF-F | F | 0.125 | 0.9 | 6 | 12 | TDC126*010NSF-F | F | 0.125 | 1.0 | 6 |
| 22 | TDC226*006NSF-F | F | 0.125 | 1.1 | 6 | 15 | TDC156*010NSF-F | F | 0.125 | 1.2 | 6 |
| 27 | TDC276*006NSF-F | F | 0.125 | 1.3 | 6 | 18 | TDC186*010NSF-F | F | 0.125 | 1.4 | 6 |
| 33 | TDC336*006NSF-F | F | 0.125 | 1.6 | 6 | 22 | TDC226*010NSF-F | F | 0.125 | 1.8 | 6 |
| 39 | TDC396*006NSF-F | F | 0.125 | 1.9 | 6 | 27 | TDC276*010NSF-F | F | 0.125 | 2.2 | 6 |
| 47 | TDC476*006NSF-F | F | 0.125 | 2.3 | 6 | 33 | TDC336*010NSF-F | F | 0.125 | 2.6 | 6 |
| 56 | TDC566*006NSF-F | F | 0.125 | 2.7 | 6 | 39 | TDC396*010NSF-F | F | 0.125 | 3.1 | 6 |
| 68 | TDC686*006NSF-F | F | 0.125 | 3.3 | 6 | 47 | TDC476*010NSF-F | F | 0.125 | 3.8 | 6 |
| 82 | TDC826*006NSF-F | F | 0.125 | 3.9 | 8 | 56 | TDC566*010NSF-F | F | 0.125 | 4.5 | 6 |
| 100 | TDC107*006NSF-F | F | 0.125 | 4.8 | 8 | 68 | TDC686*010NSF-F | F | 0.125 | 5.4 | 6 |
| 120 | TDC127*006WSG-F | G | 0.25 | 5.8 | 8 | 82 | TDC826*010WSG-F | G | 0.25 | 6.6 | 8 |
| 150 | TDC157*006WSG-F | G | 0.25 | 7.2 | 8 | 100 | TDC107*010WSG-F | G | 0.25 | 8.0 | 8 |
| 180 | TDC187*006WSG-F | G | 0.25 | 8.6 | 8 | 120 | TDC127*010WSG-F | G | 0.25 | 9.6 | 8 |
| 220 | TDC227*006WSG-F | G | 0.25 | 10 | 8 | 150 | TDC157*010WSG-F | G | 0.25 | 10.0 | 8 |
| 270 | TDC277*006WSG-F | G | 0.25 | 10 | 8 | 180 | TDC187*010WSG-F | G | 0.25 | 10.0 | 8 |
| 330 | TDC337*006WSG-F | G | 0.25 | 10 | 8 | 220 | TDC227*010WSG-F | G | 0.25 | 10.0 | 8 |

* 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 TDC Solid Tantalum Capacitors

Ratings

| Cap (μ F) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μ A) | Max. DF @ +25 °C 120 Hz (%) | Cap (μ F) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μ A) | Max. DF @ +25 °C 120 Hz (%) |
|---------------------------------------|------------------------|--------------|------------------------|---------------------------------------|--------------------------------------|---------------------------------------|------------------------|--------------|------------------------|---------------------------------------|--------------------------------------|
| 16 WVdc; 20 Vdc Surge @ 85 °C | | | | | | 20 WVdc; 26 Vdc Surge @ 85 °C | | | | | |
| 10 WVdc; 12 Vdc Surge @ 125 °C | | | | | | 13 WVdc; 16 Vdc Surge @ 125 °C | | | | | |
| 1.5 | TDC155*016NSE-F | E | 0.125 | 0.5 | 5 | 8.2 | TDC825*020NSF-F | F | 0.125 | 1.3 | 6 |
| 1.8 | TDC185*016NSE-F | E | 0.125 | 0.5 | 5 | 10 | TDC106*020NSF-F | F | 0.125 | 1.6 | 6 |
| 2.2 | TDC225*016NSE-F | E | 0.125 | 0.5 | 5 | 12 | TDC126*020NSF-F | F | 0.125 | 1.9 | 6 |
| 2.7 | TDC275*016NSE-F | E | 0.125 | 0.5 | 5 | 15 | TDC156*020NSF-F | F | 0.125 | 2.4 | 6 |
| 3.3 | TDC335*016NSE-F | E | 0.125 | 0.5 | 5 | 18 | TDC186*020NSF-F | F | 0.125 | 2.9 | 6 |
| 3.9 | TDC395*016NSE-F | E | 0.125 | 0.5 | 5 | 22 | TDC226*020NSF-F | F | 0.125 | 3.5 | 6 |
| 4.7 | TDC475*016NSE-F | E | 0.125 | 0.6 | 5 | 33 | TDC336*020WSG-F | G | 0.25 | 5.3 | 6 |
| 5.6 | TDC565*016NSE-F | E | 0.125 | 0.7 | 5 | 39 | TDC396*020WSG-F | G | 0.25 | 6.2 | 6 |
| 6.8 | TDC685*016NSE-F | E | 0.125 | 0.9 | 5 | 47 | TDC476*020WSG-F | G | 0.25 | 7.5 | 6 |
| 8.2 | TDC825*016NSE-F | E | 0.125 | 1.0 | 6 | 56 | TDC566*020WSG-F | G | 0.25 | 9.0 | 6 |
| 10 | TDC106*016NSF-F | F | 0.125 | 1.3 | 6 | 68 | TDC686*020WSG-F | G | 0.25 | 10.0 | 6 |
| 12 | TDC126*016NSF-F | F | 0.125 | 1.5 | 6 | 82 | TDC826*020WSG-F | G | 0.25 | 10.0 | 8 |
| 15 | TDC156*016NSF-F | F | 0.125 | 1.8 | 6 | 100 | TDC107*020WSG-F | G | 0.25 | 10.0 | 8 |
| 18 | TDC186*016NSF-F | F | 0.125 | 2.2 | 6 | 25 WVdc; 32 Vdc Surge @ 85 °C | | | | | |
| 22 | TDC226*016NSF-F | F | 0.125 | 2.6 | 6 | 17 WVdc; 22 Vdc Surge @ 125 °C | | | | | |
| 27 | TDC276*016NSF-F | F | 0.125 | 3.2 | 6 | 1.0 | TDC105*025NSE-F | E | 0.125 | 0.50 | 3 |
| 33 | TDC336*016NSF-F | F | 0.125 | 4.0 | 6 | 1.2 | TDC125*025NSE-F | E | 0.125 | 0.50 | 5 |
| 39 | TDC396*016WSG-F | G | 0.25 | 4.7 | 6 | 1.5 | TDC155*025NSE-F | E | 0.125 | 0.50 | 5 |
| 47 | TDC476*016WSG-F | G | 0.25 | 5.6 | 6 | 1.8 | TDC185*025NSE-F | E | 0.125 | 0.50 | 5 |
| 56 | TDC566*016WSG-F | G | 0.25 | 6.8 | 6 | 2.2 | TDC225*025NSE-F | E | 0.125 | 0.50 | 5 |
| 68 | TDC686*016WSG-F | G | 0.25 | 8.2 | 6 | 2.7 | TDC275*025NSE-F | E | 0.125 | 0.50 | 5 |
| 82 | TDC826*016WSG-F | G | 0.25 | 9.8 | 8 | 3.3 | TDC335*025NSE-F | E | 0.125 | 0.70 | 5 |
| 100 | TDC107*016WSG-F | G | 0.25 | 10.0 | 8 | 3.9 | TDC395*025NSE-F | E | 0.125 | 0.80 | 5 |
| 120 | TDC127*016WSG-F | G | 0.25 | 10.0 | 8 | 4.7 | TDC475*025NSF-F | F | 0.125 | 0.90 | 5 |
| 150 | TDC157*016WSG-F | G | 0.25 | 10.0 | 8 | 5.6 | TDC565*025NSF-F | F | 0.125 | 1.10 | 5 |
| 20 WVdc; 26 Vdc Surge @ 85 °C | | | | | | 6.8 | TDC685*025NSF-F | F | 0.125 | 1.40 | 5 |
| 13 WVdc; 16 Vdc Surge @ 125 °C | | | | | | 8.2 | TDC825*025NSF-F | F | 0.125 | 1.60 | 6 |
| 1.0 | TDC105*020NSE-F | E | 0.125 | 0.5 | 3 | 10 | TDC106*025NSF--F | F | 0.125 | 2.0 | 6 |
| 1.2 | TDC125*020NSE-F | E | 0.125 | 0.5 | 5 | 12 | TDC126*025NSF-F | F | 0.125 | 2.4 | 6 |
| 1.5 | TDC155*020NSE-F | E | 0.125 | 0.5 | 5 | 15 | TDC156*025NSF-F | F | 0.125 | 3.0 | 6 |
| 1.8 | TDC185*020NSE-F | E | 0.125 | 0.5 | 5 | 18 | TDC186*025NSF-F | F | 0.125 | 3.6 | 6 |
| 2.2 | TDC225*020NSE-F | E | 0.125 | 0.5 | 5 | 22 | TDC226*025NSF-F | F | 0.125 | 4.4 | 6 |
| 2.7 | TDC275*020NSE-F | E | 0.125 | 0.5 | 5 | 27 | TDC276*025WSG-F | G | 0.250 | 5.4 | 6 |
| 3.3 | TDC335*020NSE-F | E | 0.125 | 0.5 | 5 | 33 | TDC336*025WSG-F | G | 0.250 | 6.6 | 6 |
| 3.9 | TDC395*020NSE-F | E | 0.125 | 0.6 | 5 | 39 | TDC396*025WSG-F | G | 0.250 | 7.8 | 6 |
| 4.7 | TDC475*020NSE-F | E | 0.125 | 0.8 | 5 | 47 | TDC476*025WSG-F | G | 0.250 | 9.4 | 6 |
| 5.6 | TDC565*020NSF-F | F | 0.125 | 0.9 | 5 | 56 | TDC566*025WSG-F | G | 0.250 | 10.0 | 6 |
| 6.8 | TDC685*020NSF-F | F | 0.125 | 1.1 | 5 | 68 | TDC686*025WSG-F | G | 0.250 | 10.0 | 6 |

* 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 TDC Solid Tantalum Capacitors

Ratings

| Cap (μ F) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μ A) | Max. DF @ +25 °C 120 Hz (%) | Cap (μ F) | Catalog Part Number | Case Code | Lead Spacing (S) | Max. DCL @ +25 °C (μ A) | Max. DF @ +25 °C 120 Hz (%) |
|---|------------------------|--------------|------------------------|---------------------------------------|--------------------------------------|---|------------------------|--------------|------------------------|---------------------------------------|--------------------------------------|
| 35 WVdc; 46 Vdc Surge @ 85 °C 23 WVdc; 28 Vdc Surge @ 125 °C | | | | | | 50 WVdc; 65 Vdc Surge @ 85 °C 33 WVdc; 40 Vdc Surge @ 125 °C | | | | | |
| 0.10 | TDC104*035NSE-F | E | 0.125 | 0.5 | 3 | .10 | TDC104*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.12 | TDC124*035NSE-F | E | 0.125 | 0.5 | 3 | .12 | TDC124*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.15 | TDC154*035NSE-F | E | 0.125 | 0.5 | 3 | .15 | TDC154*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.18 | TDC184*035NSE-F | E | 0.125 | 0.5 | 3 | .18 | TDC184*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.22 | TDC224*035NSE-F | E | 0.125 | 0.5 | 3 | .22 | TDC224*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.27 | TDC274*035NSE-F | E | 0.125 | 0.5 | 3 | .27 | TDC274*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.33 | TDC334*035NSE-F | E | 0.125 | 0.5 | 3 | .33 | TDC334*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.39 | TDC394*035NSE-F | E | 0.125 | 0.5 | 3 | .39 | TDC394*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.47 | TDC474*035NSE-F | E | 0.125 | 0.5 | 3 | .47 | TDC474*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.56 | TDC564*035NSE-F | E | 0.125 | 0.5 | 3 | .56 | TDC564*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.68 | TDC684*035NSE-F | E | 0.125 | 0.5 | 3 | .68 | TDC684*050NSE-F | E | 0.125 | 0.5 | 3 |
| 0.82 | TDC824*035NSE-F | E | 0.125 | 0.5 | 3 | .82 | TDC824*050NSE-F | E | 0.125 | 0.5 | 3 |
| 1.0 | TDC105*035NSE-F | E | 0.125 | 0.5 | 3 | 1.0 | TDC105*050NSE-F | E | 0.125 | 0.5 | 3 |
| 1.2 | TDC125*035NSE-F | E | 0.125 | 0.5 | 5 | 1.2 | TDC125*050NSE-F | E | 0.125 | 0.5 | 5 |
| 1.5 | TDC155*035NSE-F | E | 0.125 | 0.5 | 5 | 1.5 | TDC155*050NSE-F | E | 0.125 | 0.6 | 5 |
| 1.8 | TDC185*035NSE--F | E | 0.125 | 0.5 | 5 | 1.8 | TDC185*050NSF-F | F | 0.125 | 0.7 | 5 |
| 2.2 | TDC225*035NSE-F | E | 0.125 | 0.6 | 5 | 2.2 | TDC225*050NSF-F | F | 0.125 | 0.9 | 5 |
| 2.7 | TDC275*035NSF-F | F | 0.125 | 0.7 | 5 | 2.7 | TDC275*050NSF-F | F | 0.125 | 1.1 | 5 |
| 3.3 | TDC335*035NSF-F | F | 0.125 | 0.9 | 5 | 3.3 | TDC335*050NSF-F | F | 0.125 | 1.3 | 5 |
| 3.9 | TDC339*035NSF-F | F | 0.125 | 1.0 | 5 | 3.9 | TDC395*050NSF-F | F | 0.125 | 1.6 | 5 |
| 4.7 | TDC475*035NSF-F | F | 0.125 | 1.3 | 5 | 4.7 | TDC475*050NSF-F | F | 0.125 | 1.9 | 5 |
| 5.6 | TDC565*035NSF-F | F | 0.125 | 1.6 | 5 | 5.6 | TDC565*050NSF-F | F | 0.125 | 2.2 | 5 |
| 6.8 | TDC685*035NSF-F | F | 0.125 | 1.9 | 5 | 6.8 | TDC685*050WSG-F | G | 0.25 | 2.7 | 5 |
| 8.2 | TDC825*035NSF-F | F | 0.125 | 2.3 | 6 | 8.2 | TDC825*050WSG-F | G | 0.25 | 3.3 | 6 |
| 10 | TDC106*035NSF-F | F | 0.125 | 2.8 | 6 | 10 | TDC106*050WSG-F | G | 0.25 | 4.0 | 6 |
| 12 | TDC126*035WSG-F | G | 0.25 | 3.4 | 6 | 12 | TDC126*050WSG-F | G | 0.25 | 4.8 | 6 |
| 15 | TDC156*035WSG-F | G | 0.25 | 4.2 | 6 | 15 | TDC156*050WSG-F | G | 0.25 | 6.0 | 6 |
| 18 | TDC186*035WSG-F | G | 0.25 | 5.0 | 6 | 18 | TDC186*050WSG-F | G | 0.25 | 7.2 | 6 |
| 22 | TDC226*035WSG-F | G | 0.25 | 6.2 | 6 | 22 | TDC226*050WSG-F | G | 0.25 | 8.8 | 6 |
| 27 | TDC276*035WSG-F | G | 0.25 | 7.6 | 6 | | | | | | |
| 33 | TDC336*035WSG-F | G | 0.25 | 9.2 | 6 | | | | | | |
| 39 | TDC396*035WSG-F | G | 0.25 | 10 | 6 | | | | | | |
| 47 | TDC476*035WSG-F | G | 0.25 | 10 | 6 | | | | | | |

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Part Numbering System

| TDC | 107 | K | 016 | W | S | G | -F |
|------------|---------------------------|----------------------|---------------------|-----------------|------------------------|-----------|------------------------------|
| Series | Capacitance | Tolerance | Voltage | Lead Spacing | Lead Length | Case Code | RoHS Compliant |
| TDC | 394 = 0.39 μ F | J = \pm 5% | 006 = 6 Vdc | N = .125 | S = .187 | E | -F = Compliant |
| | 105 = 1.0 μ F | K = \pm 10% | 010 = 10 Vdc | W = .250 | T = Tape & Reel | F | Blank = Not Compliant |
| | 225 = 2.2 μ F | M = \pm 20% | 016 = 16 Vdc | | | G | |
| | 186 = 18 μ F | | 020 = 20 Vdc | | | | |
| | 107 = 100 μ F | | 025 = 25 Vdc | | | | |
| | | | 035 = 35 Vdc | | | | |
| | | | 050 = 50 Vdc | | | | |

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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