



TC and TCO Series Standard Tantalum and Conductive Polymer Electrolytic Capacitors

Features: Small package, large capacitance chip tantalum capacitor. These low impedance capacitors are ideal for digital and low voltage circuits used in portable electronic equipment.

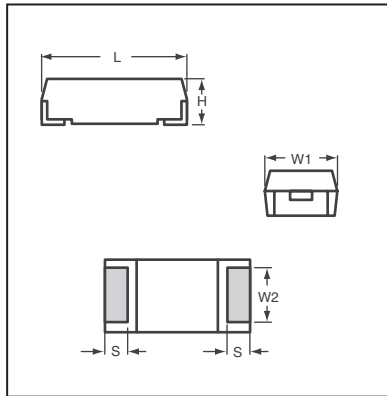
TC Series:

Specifications: • Capacitance Tolerance: ±20% • Operating Temperature Range: -55°C ~ 125°C (derated voltage from 85°C ~ 125°C) • Tangent of Loss Angle: Maximum 24% at 120Hz (25°C) • Leakage Current: 0.5µA or 0.01CV whichever is greater • Impedance: Max 27.5Ω at 100kHz

TCO Series:

Specifications: • Capacitance Tolerance: ±20% • Operating Temperature Range: -55°C ~ 105°C (derated voltage from 85°C ~ 105°C) • Tangent of Loss Angle: (A size code) Maximum 6% at 120Hz (25°C) (B size code) Maximum 8% at 120Hz (25°C) • Leakage Current: (A size code) 3µA or 0.1CV whichever is greater (B size code) less than 0.1CV µA • Impedance: (A size code) Max 0.3 or 0.5 or 0.8Ω at 100kHz (B size code) Maximum 0.2Ω at 100kHz

| Case Size | Size Code | Dimension (mm) | | | | |
|-----------|-----------|----------------|------|------|------------|------|
| | | L | W1 | W2 | H | S |
| 2012 | P | 2 | 1.25 | 0.9 | 1.2 (Max.) | 0.45 |
| 3216 | A | 3.2 | 1.6 | 1.2 | 1.6 | 0.8 |
| 1608 | M | 1.6 | 0.85 | 0.55 | 0.8 | 0.5 |
| 3528 | B | 3.5 | 2.8 | 1.9 | 1.9 | 0.8 |

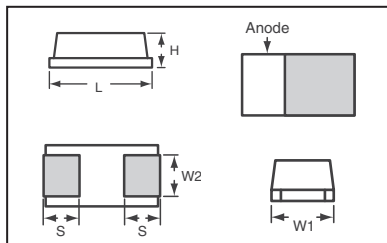


| W.V. (DC) | Cap. (µF) | Size Code | Digi-Key Part No. | Cut Tape Pricing | | | Digi-Key Part No. | Tape and Reel | | Rohm Part No. | |
|--------------------------------------|---|---------------|-------------------|------------------|-------|---------------|-------------------|---------------|--------------|---------------|--------------|
| | | | | 1 | 10 | 100 | | Qty. | Pricing | | |
| TC Series — Standard Tantalum | | | | | | | | | | | |
| 4 | 2.2 | P | 511-1427-1-ND | .33 | 2.83 | 24.70 | 511-1427-2-ND | 3,000 | 117.00/M | TCPOG225M8R | |
| | 3.3 | P | 511-1428-1-ND | .33 | 2.83 | 24.70 | 511-1428-2-ND | 3,000 | 117.00/M | TCPOG335M8R | |
| | 4.7 | A | 511-1429-1-ND | .33 | 2.83 | 24.70 | 511-1429-2-ND | 2,000 | 117.00/M | TCOA0G475M8R | |
| | 10 | A | 511-1430-1-ND | .33 | 2.83 | 24.70 | 511-1430-2-ND | 2,000 | 117.00/M | TCOA0G106M8R | |
| | 10 | P | 511-1431-1-ND | .33 | 2.83 | 24.70 | 511-1431-2-ND | 3,000 | 117.00/M | TCPOG106M8R | |
| | 15 | A | 511-1432-1-ND | .40 | 3.48 | 30.40 | 511-1432-2-ND | 2,000 | 144.00/M | TCOA0G156M8R | |
| | 15 | P | 511-1433-1-ND | .39 | 3.35 | 29.26 | 511-1433-2-ND | 3,000 | 139.00/M | TCPOG156M8R | |
| | 22 | A | 511-1434-1-ND | .33 | 2.83 | 24.70 | 511-1434-2-ND | 2,000 | 117.00/M | TCOA0G226M8R | |
| | 22 | P | 511-1435-1-ND | .49 | 4.22 | 36.86 | 511-1435-2-ND | 3,000 | 175.00/M | TCPOG226M8R | |
| | 22 | M | 511-1436-1-ND | .60 | 5.22 | 45.60 | 511-1436-2-ND | 4,000 | 216.00/M | TCM0G226M8R | |
| | 33 | A | 511-1436-1-ND | .33 | 2.83 | 24.70 | 511-1436-2-ND | 2,000 | 117.00/M | TCOA0G336M8R | |
| | 47 | A | 511-1437-1-ND | .33 | 2.83 | 24.70 | 511-1437-2-ND | 2,000 | 117.00/M | TCOA0G476M8R | |
| 6.3 | 1.5 | P | 511-1438-1-ND | .33 | 2.83 | 24.70 | 511-1438-2-ND | 3,000 | 117.00/M | TCPOJ155M8R | |
| | 2.2 | P | 511-1439-1-ND | .33 | 2.83 | 24.70 | 511-1439-2-ND | 3,000 | 117.00/M | TCPOJ225M8R | |
| | 3.3 | A | 511-1440-1-ND | .33 | 2.83 | 24.70 | 511-1440-2-ND | 2,000 | 117.00/M | TCOA0J335M8R | |
| | 3.3 | P | 511-1441-1-ND | .33 | 2.83 | 24.70 | 511-1441-2-ND | 3,000 | 117.00/M | TCPOJ335M8R | |
| | 4.7 | A | 511-1442-1-ND | .33 | 2.83 | 24.70 | — | — | — | TCOA0J475M8R | |
| | 4.7 | P | 511-1443-1-ND | .33 | 2.83 | 24.70 | 511-1443-2-ND | 3,000 | 117.00/M | TCPOJ475M8R | |
| | 6.8 | A | 511-1444-1-ND | .33 | 2.83 | 24.70 | — | — | — | TCOA0J685M8R | |
| | 6.8 | P | 511-1445-1-ND | .39 | 3.35 | 29.26 | 511-1445-2-ND | 3,000 | 139.00/M | TCPOJ685M8R | |
| | 10 | A | 511-1446-1-ND | .33 | 2.83 | 24.70 | 511-1446-2-ND | 2,000 | 117.00/M | TCOA0J106M8R | |
| | 10 | P | 511-1447-1-ND | .36 | 3.09 | 26.98 | 511-1447-2-ND | 3,000 | 128.00/M | TCPOJ106M8R | |
| | 10 | M | 511-1448-1-ND | .60 | 5.22 | 45.60 | 511-1448-2-ND | 4,000 | 216.00/M | TCM0J106M8R | |
| | 15 | P | 511-1448-1-ND | .65 | 5.61 | 49.02 | 511-1448-2-ND | 3,000 | 232.00/M | TCPOJ156M8R | |
| 15 | A | 511-1449-1-ND | .33 | 2.83 | 24.70 | 511-1449-2-ND | 2,000 | 117.00/M | TCOA0J156M8R | | |
| 22 | A | 511-1450-1-ND | .30 | 2.57 | 22.42 | 511-1450-2-ND | 2,000 | 106.00/M | TCOA0J226M8R | | |
| 33 | A | 511-1451-1-ND | .33 | 2.83 | 24.70 | 511-1451-2-ND | 2,000 | 117.00/M | TCOA0J336M8R | | |
| 47 | A | 511-1452-1-ND | .33 | 2.83 | 24.70 | 511-1452-2-ND | 2,000 | 117.00/M | TCOA0J476M8R | | |
| 10 | 1 | P | 511-1453-1-ND | .29 | 2.52 | 22.04 | 511-1453-2-ND | 3,000 | 104.00/M | TCP1A105M8R | |
| | 1.5 | P | 511-1454-1-ND | .33 | 2.83 | 24.70 | 511-1454-2-ND | 3,000 | 117.00/M | TCP1A155M8R | |
| | 1.5 | A | 511-1455-1-ND | .33 | 2.83 | 24.70 | 511-1455-2-ND | 2,000 | 117.00/M | TCOA1A155M8R | |
| | 2.2 | A | 511-1456-1-ND | .33 | 2.83 | 24.70 | 511-1456-2-ND | 2,000 | 117.00/M | TCOA1A225M8R | |
| | 2.2 | M | 511-1459-1-ND | .55 | 4.79 | 41.80 | 511-1459-2-ND | 4,000 | 198.00/M | TCM1A225M8R | |
| | 2.2 | P | 511-1457-1-ND | .33 | 2.83 | 24.70 | 511-1457-2-ND | 3,000 | 117.00/M | TCP1A225M8R | |
| | 3.3 | P | 511-1458-1-ND | .33 | 2.83 | 24.70 | 511-1458-2-ND | 3,000 | 117.00/M | TCP1A335M8R | |
| | 3.3 | A | 511-1459-1-ND | .33 | 2.83 | 24.70 | 511-1459-2-ND | 2,000 | 117.00/M | TCOA1A335M8R | |
| | 4.7 | A | 511-1460-1-ND | .33 | 2.83 | 24.70 | 511-1460-2-ND | 2,000 | 117.00/M | TCOA1A475M8R | |
| | 4.7 | P | 511-1461-1-ND | .39 | 3.35 | 29.26 | 511-1461-2-ND | 3,000 | 139.00/M | TCP1A475M8R | |
| | 4.7 | M | 511-1466-1-ND | .60 | 5.22 | 45.60 | 511-1466-2-ND | 4,000 | 216.00/M | TCM1A475M8R | |
| | 6.8 | A | 511-1462-1-ND | .33 | 2.83 | 24.70 | 511-1462-2-ND | 2,000 | 117.00/M | TCOA1A685M8R | |
| 10 | A | 511-1463-1-ND | .33 | 2.83 | 24.70 | 511-1463-2-ND | 2,000 | 117.00/M | TCOA1A106M8R | | |
| 15 | A | 511-1464-1-ND | .33 | 2.83 | 24.70 | 511-1464-2-ND | 2,000 | 117.00/M | TCOA1A156M8R | | |
| 22 | A | 511-1465-1-ND | .33 | 2.83 | 24.70 | 511-1465-2-ND | 2,000 | 117.00/M | TCOA1A226M8R | | |
| 16 | 1 | A | 511-1466-1-ND | .33 | 2.83 | 24.70 | 511-1466-2-ND | 2,000 | 117.00/M | TCOA1C105M8R | |
| | 1 | P | 511-1467-1-ND | .33 | 2.83 | 24.70 | 511-1467-2-ND | 3,000 | 117.00/M | TCP1C105M8R | |
| | 1 | M | 511-1497-1-ND | .50 | 4.35 | 38.00 | 511-1497-2-ND | 4,000 | 180.00/M | TCM1C105M8R | |
| | 1.5 | A | 511-1468-1-ND | .33 | 2.83 | 24.70 | 511-1468-2-ND | 2,000 | 117.00/M | TCOA1C155M8R | |
| | 2.2 | A | 511-1469-1-ND | .33 | 2.83 | 24.70 | 511-1469-2-ND | 2,000 | 117.00/M | TCOA1C225M8R | |
| | 3.3 | A | 511-1470-1-ND | .33 | 2.83 | 24.70 | 511-1470-2-ND | 2,000 | 117.00/M | TCOA1C335M8R | |
| | 4.7 | A | 511-1471-1-ND | .33 | 2.83 | 24.70 | 511-1471-2-ND | 2,000 | 117.00/M | TCOA1C475M8R | |
| | 6.8 | A | 511-1472-1-ND | .33 | 2.83 | 24.70 | 511-1472-2-ND | 2,000 | 117.00/M | TCOA1C685M8R | |
| | 10 | A | 511-1473-1-ND | .33 | 2.83 | 24.70 | 511-1473-2-ND | 2,000 | 117.00/M | TCOA1C106M8R | |
| | 20 | 1 | A | 511-1474-1-ND | .33 | 2.83 | 24.70 | 511-1474-2-ND | 2,000 | 117.00/M | TCOA1D105M8R |
| | TCO Series — Conductive Polymer Type | | | | | | | | | | |
| | 4 | 33 | A | 511-1596-1-ND | 1.13 | 9.84 | 85.92 | 511-1596-2-ND | 2,000 | 407.00/M | TCOA0G336M8R |
| 10 | 10 | A | 511-1597-1-ND | 1.00 | 8.68 | 75.81 | 511-1597-2-ND | 2,000 | 359.00/M | TCOA0J106M8R | |
| 6.3 | 22 | A | 511-1598-1-ND | 1.13 | 9.84 | 85.92 | 511-1598-2-ND | 2,000 | 407.00/M | TCOA0J226M8R | |
| 47 | B | A | 511-1600-1-ND | 1.40 | 12.15 | 106.13 | 511-1600-2-ND | 2,000 | 503.00/M | TCOB0J476M8R | |
| 10 | 10 | A | 511-1599-1-ND | 1.00 | 8.68 | 75.81 | 511-1599-2-ND | 2,000 | 359.00/M | TCOA0A106M8R | |
| 33 | B | A | 511-1601-1-ND | 1.40 | 12.15 | 106.13 | 511-1601-2-ND | 2,000 | 503.00/M | TCOB1A336M8R | |

TCFG Series Fused Tantalum Electrolytic Capacitors



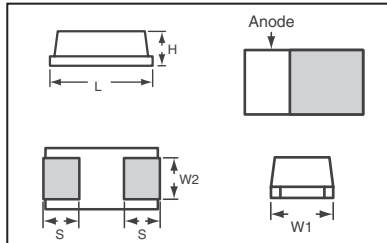
| Case Size | Size Code | Dimension (mm) | | | | |
|-----------|-----------|----------------|------|-----|------------|------|
| | | L | W1 | W2 | H | S |
| 2012 | P | 2 | 1.25 | 0.9 | 1.2 (Max.) | 0.45 |
| 3216 | A | 3.2 | 1.6 | 1.2 | 1.6 | 0.8 |



Features: • Safety design by built-in open function • Wide capacitance range • Screening by thermal shock **Specifications:** • Capacitance Tolerance: 20% • Operating Temperature Range: -55°C ~ 125°C (derated voltage from 85°C ~ 125°C) • DC Leakage Current: 0.5µA or 0.01CV, whichever is greater

| W.V. (DC) | Cap. (µF) | Size Code | Digi-Key Part No. | Cut Tape Pricing | | | Digi-Key Part No. | Tape and Reel | | Rohm Part No. |
|-----------|-----------|-----------|-------------------|------------------|------|-------|-------------------|---------------|----------|---------------|
| | | | | 1 | 10 | 100 | | Qty. | Pricing | |
| 4 | 22 | P | 511-1487-1-ND | .60 | 5.22 | 45.60 | 511-1487-2-ND | 2,000 | 216.00/M | TCFGP0G226M8R |
| | 47 | A | 511-1476-1-ND | .33 | 2.83 | 24.70 | 511-1476-2-ND | 2,000 | 117.00/M | TCFGA0G476M8R |
| | 10 | P | 511-1488-1-ND | .36 | 3.09 | 26.98 | 511-1488-2-ND | 2,000 | 128.00/M | TCFGP0J106M8R |
| | 15 | P | 511-1489-1-ND | .60 | 5.22 | 45.60 | 511-1489-2-ND | 2,000 | 216.00/M | TCFGP0J156M8R |
| 6.3 | 22 | A | 511-1477-1-ND | .36 | 3.09 | 26.98 | 511-1477-2-ND | 2,000 | 128.00/M | TCFGA0J226M8R |
| | 33 | A | 511-1478-1-ND | .50 | 4.35 | 38.00 | 511-1478-2-ND | 2,000 | 180.00/M | TCFGA0J336M8R |
| | 2.2 | P | 511-1490-1-ND | .43 | 3.70 | 32.30 | 511-1490-2-ND | 2,000 | 153.00/M | TCFGP1A225M8R |
| | 4.7 | P | 511-1491-1-ND | .36 | 3.09 | 26.98 | 511-1491-2-ND | 2,000 | 153.00/M | TCFGP1A475M8R |
| 10 | 10 | A | 511-1479-1-ND | .36 | 3.09 | 26.98 | 511-1479-2-ND | 2,000 | 128.00/M | TCFGA1A106M8R |
| | 15 | A | 511-1480-1-ND | .44 | 3.78 | 33.06 | 511-1480-2-ND | 2,000 | 157.00/M | TCFGA1A156M8R |
| | 22 | A | 511-1481-1-ND | .85 | 7.40 | 64.60 | 511-1481-2-ND | 2,000 | 306.00/M | TCFGA1A226M8R |
| | 1 | A | 511-1482-1-ND | .36 | 3.09 | 26.98 | 511-1482-2-ND | 2,000 | 128.00/M | TCFGA1C105M8R |
| 16 | 1 | P | 511-1492-1-ND | .40 | 3.48 | 30.40 | 511-1492-2-ND | 2,000 | 144.00/M | TCFGP1C105M8R |
| | 3.3 | A | 511-1484-1-ND | .36 | 3.09 | 26.98 | 511-1484-2-ND | 2,000 | 128.00/M | TCFGA1C335M8R |
| | 4.7 | A | 511-1485-1-ND | .36 | 3.09 | 26.98 | 511-1485-2-ND | 2,000 | 128.00/M | TCFGA1C475M8R |
| | 10 | A | 511-1483-1-ND | .55 | 4.79 | 41.80 | 511-1483-2-ND | 2,000 | 198.00/M | TCFGA1C106M8R |
| 20 | 1 | A | 511-1486-1-ND | .36 | 3.09 | 26.98 | 511-1486-2-ND | 2,000 | 128.00/M | TCFGA1D105M8R |

TCT Series Tantalum Electrolytic Capacitors With Bottom Surface Electrodes



Features: The compact terminal construction allows for a larger tantalum element, therefore allowing significantly higher capacitances than conventional units of the same size. **Specifications:** • Capacitance Tolerance: 20% • Operating Temperature Range: -55°C ~ 125°C (derated voltage from 85°C ~ 125°C)

| Case Size | Size Code | Dimension (| | | | |
|-----------|-----------|-------------|--|--|--|--|
|-----------|-----------|-------------|--|--|--|--|