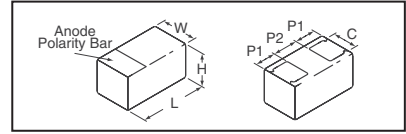


VISHAY Sprague MICROTAN™ Leadframeless Solid Tantalum Molded Chip Capacitors — 298D Series



Features: • 0402, 0603 and 0805 Footprint • Lead (Pb)-free L-shaped terminations • Best volumetric efficiency • No piezo-electric noise problem
 Performance Characteristics: • Operating Temperature: -55°C – 85°C (Up to 125°C with voltage derating) Applications: • Mobile phones • MP3 players • LCD modules • Medical implantable products • Other portable consumer electronic products



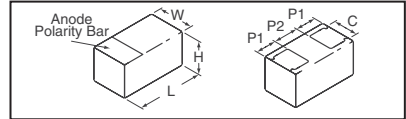
| Size Code | Case Code | Dimensions — mm | | | | | |
|-----------|-----------|-----------------|-----------|-----------|-----------|-----------|-----------|
| | | L | W | H | P1 | P2 (Ref.) | C |
| 0402 | K | 1.0 ±0.2 | 0.5 ±0.2 | 0.6 max. | 0.25 ±0.1 | 0.5 | 0.38 ±0.1 |
| 0603 | M | 1.60 ±0.1 | 0.85 ±0.1 | 0.80 ±0.1 | 0.50 ±0.1 | 0.60 | 0.60 ±0.1 |
| 0805 | P | 2.4 ±0.1 | 1.45 ±0.1 | 1.10 ±0.1 | 0.50 ±0.1 | 1.40 | 0.90 ±0.1 |

| Rated Voltage (V) | Size Code | Capacitance (µF) | Capacitance Tolerance | Max. DC Leakage @ 25°C (µA) | Max. DF @ 25°C (%) | Max. ESR @ 25°C 100kHz (Ω) | Max. Ripple 100kHz Irms (A) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | Tape and Reel | | Vishay Part No. |
|-------------------|-----------|------------------|-----------------------|-----------------------------|--------------------|----------------------------|-----------------------------|---------------------------|---------------------|------|------|---------------------------|---------------|----------|-----------------|
| | | | | | | | | | 1 | 10 | 100 | | Qty. | Pricing | |
| 4 | 0402 | 4.7 | ±20% | 0.5 | 15 | 20 | 0.027 | 718-1616-1-ND | 1.77 | 1.45 | 1.17 | 718-1616-2-ND | 5,000 | 476.92/M | 298D475X0004K2T |
| | 0402 | 10 | ±20% | 4.0 | 50 | 20 | 0.027 | 718-1615-1-ND | 2.40 | 1.97 | 1.59 | 718-1615-2-ND | 5,000 | 648.61/M | 298D106X0004K2T |
| | 0402 | 15 | ±20% | 10 | 50 | 20 | 0.027 | 718-1717-1-ND NEW! | 2.44 | 2.03 | 1.79 | 718-1717-2-ND NEW! | 5,000 | 773.17/M | 298D156X0004K2T |
| | 0603 | 47 | ±20% | 3.8 | 20 | 4.0 | 0.08 | 718-1609-1-ND | 2.12 | 1.74 | 1.40 | 718-1609-2-ND | 4,000 | 572.31/M | 298D476X0004M2T |
| 6.3 | 0603 | 4.7 | ±20% | 0.5 | 8 | 8 | 0.09 | 718-1162-1-ND | 1.40 | 1.15 | .93 | 718-1162-2-ND | 4,000 | 379.29/M | 298D475X06R3M2T |
| | 0603 | 10 | ±20% | 0.6 | 8 | 8 | 0.09 | 718-1160-1-ND | 1.67 | 1.37 | 1.10 | 718-1160-2-ND | 4,000 | 449.99/M | 298D106X06R3M2T |
| | 0603 | 22 | ±20% | 2.8 | 20 | 5.5 | 0.067 | 718-1610-1-ND | 2.12 | 1.74 | 1.40 | 718-1610-2-ND | 4,000 | 572.31/M | 298D226X06R3M2T |
| | 0603 | 33 | ±20% | 4.2 | 30 | 7.5 | 0.058 | 718-1611-1-ND | 2.12 | 1.74 | 1.40 | 718-1611-2-ND | 4,000 | 572.31/M | 298D336X06R3M2T |
| | 0805 | 100 | ±20% | 6.3 | 30 | 2.0 | 0.150 | 718-1607-1-ND | 2.30 | 1.89 | 1.52 | 718-1607-2-ND | 3,000 | 644.12/M | 298D107X06R3P2T |
| 10 | 0402 | 2.2 | ±20% | 0.5 | 8.0 | 15 | 0.027 | 718-1617-1-ND | 2.40 | 1.97 | 1.59 | 718-1617-2-ND | 5,000 | 648.61/M | 298D225X0010K2T |
| | 0402 | 1.0 | ±20% | 0.5 | 6.0 | 20 | 0.027 | 718-1719-1-ND NEW! | 1.77 | 1.45 | 1.17 | 718-1719-2-ND NEW! | 5,000 | 476.92/M | 298D105X0010K2T |
| | 0603 | 4.7 | ±20% | 0.5 | 6 | 10 | 0.08 | 718-1161-1-ND | 1.40 | 1.15 | .93 | 718-1161-2-ND | 4,000 | 379.29/M | 298D475X0010M2T |
| | 0603 | 4.7 | ±10% | 0.5 | 6 | 10 | 0.08 | 718-1163-1-ND | 1.40 | 1.15 | .93 | 718-1163-2-ND | 4,000 | 379.29/M | 298D475X0010M2T |
| | 0603 | 10 | ±20% | 1 | 8 | 8 | 0.08 | 718-1159-1-ND | 2.36 | 1.94 | 1.56 | 718-1159-2-ND | 4,000 | 636.27/M | 298D106X0010M2T |
| | 0603 | 15 | ±20% | 1.5 | 20 | 7.5 | 0.058 | 718-1612-1-ND | 2.12 | 1.74 | 1.40 | 718-1612-2-ND | 4,000 | 572.31/M | 298D156X0010M2T |
| 16 | 0603 | 22 | ±20% | 2.2 | 40 | 10.0 | 0.05 | 718-1718-1-ND NEW! | 2.40 | 1.97 | 1.59 | 718-1718-2-ND NEW! | 4,000 | 648.61/M | 298D226X0010M2T |
| | 0805 | 47 | ±20% | 4.7 | 22 | 3.0 | 0.122 | 718-1608-1-ND | 2.30 | 1.89 | 1.52 | 718-1608-2-ND | 3,000 | 644.12/M | 298D476X0010P2T |
| | 0402 | 1 | ±20% | 3.0 | 10 | 20 | 0.027 | 718-1618-1-ND | 2.40 | 1.97 | 1.59 | 718-1618-2-ND | 5,000 | 648.61/M | 298D105X0016K2T |
| 25 | 0603 | 1 | ±20% | 0.5 | 6 | 20 | 0.045 | 718-1157-1-ND | 1.40 | 1.15 | .93 | 718-1157-2-ND | 4,000 | 379.29/M | 298D105X0016M2T |
| | 0603 | 1 | ±10% | 0.5 | 6 | 20 | 0.045 | 718-1158-1-ND | 1.40 | 1.15 | .93 | 718-1158-2-ND | 4,000 | 379.29/M | 298D105X0016M2T |
| | 0603 | 2.2 | ±20% | 0.5 | 10 | 12.0 | 0.045 | 718-1613-1-ND | 1.43 | 1.19 | .88 | 718-1613-2-ND | 4,000 | 346.75/M | 298D225X0016M2T |
| 50 | 0603 | 1 | ±20% | 0.5 | 6.0 | 10.0 | 0.05 | 718-1614-1-ND | 2.12 | 1.74 | 1.40 | 718-1614-2-ND | 4,000 | 572.31/M | 298D105X0025M2T |
| | 0805 | 1 | ±20% | 0.5 | 8.0 | 8.0 | 0.075 | 718-1720-1-ND NEW! | 2.30 | 1.89 | 1.52 | 718-1720-2-ND NEW! | 3,000 | 644.12/M | 298D105X0050P2T |

F MICROTAN™ Low ESR Leadframeless Solid Tantalum Molded Chip Capacitors — TR8 Series



Features: • 0603 Footprint • Lead (Pb)-free face-down terminations • Low ESR • Best volumetric efficiency • No piezo-electric noise problem
 Performance Characteristics: • Operating Temperature: -55°C – 85°C (Up to 125°C with voltage derating) • Capacitance Tolerance: ±20%
 Applications: • Cell phones • Digital cameras • MP3 players • Other portable devices



| Size Code | Case Code | Dimensions — mm | | | | | |
|-----------|-----------|-----------------|-----------|-----------|-----------|-----------|-----------|
| | | L | W | H | P1 | P2 (Ref.) | C |
| 0603 | M | 1.60 ±0.1 | 0.85 ±0.1 | 0.80 ±0.1 | 0.50 ±0.1 | 0.60 ±0.1 | 0.60 ±0.1 |

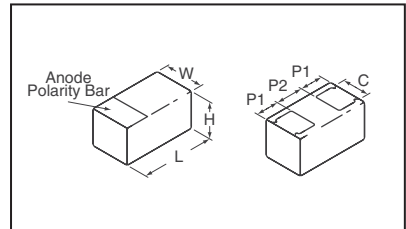
| Rated Voltage (V) | Size Code | Capacitance (µF) | Max. DC Leakage @ 25°C (µA) | Max. DF @ 25°C (%) | Max. ESR @ 25°C 100kHz (Ω) | Max. Ripple 100kHz Irms (A) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | Tape and Reel Pricing 4,000 | Vishay Part No. |
|-------------------|-----------|------------------|-----------------------------|--------------------|----------------------------|-----------------------------|-------------------|---------------------|------|------|-------------------|-----------------------------|------------------|
| | | | | | | | | 1 | 10 | 100 | | | |
| 4 | 0603 | 47 | 3.8 | 20 | 1.5 | 0.129 | 718-1670-1-ND | 2.41 | 2.01 | 1.77 | 718-1670-2-ND | 766.44/M | TR8M476M004C1500 |
| | 0603 | 22 | 2.8 | 20 | 1.5 | 0.129 | 718-1671-1-ND | 2.41 | 2.01 | 1.77 | 718-1671-2-ND | 766.44/M | TR8M226M6R3C1500 |
| 6.3 | 0603 | 33 | 4.2 | 30 | 1.5 | 0.129 | 718-1672-1-ND | 2.41 | 2.01 | 1.77 | 718-1672-2-ND | 766.44/M | TR8M336M6R3C1500 |
| | 0603 | 10 | 1.0 | 20 | 2.0 | 0.112 | 718-1673-1-ND | 2.41 | 2.01 | 1.77 | 718-1673-2-ND | 766.44/M | TR8M106M10C2000 |
| 10 | 0603 | 15 | 1.5 | 20 | 3.0 | 0.091 | 718-1674-1-ND | 2.41 | 2.01 | 1.77 | 718-1674-2-ND | 766.44/M | TR8M156M10C3000 |
| | 0603 | 1 | 0.5 | 6.0 | 9.5 | 0.050 | 718-1675-1-ND | 1.76 | 1.44 | 1.16 | 718-1675-2-ND | 474.68/M | TR8M105M16C9500 |
| 16 | 0603 | 4.7 | 0.8 | 8.0 | 4.0 | 0.079 | 718-1676-1-ND | 2.41 | 2.01 | 1.77 | 718-1676-2-ND | 766.44/M | TR8M475M16C4000 |

NEW! MICROTAN™ High Reliability, Low DCL, Leadframeless Molded Chip Capacitors — TM8 Series



Features: • High reliability solid surface mount tantalum capacitors • Low DCL for extended battery life • Small sizes for space constrained applications
 • L-shaped terminations for superior board mounting • Suitable for medical implantable applications with additional screening

Performance Characteristics: • Operating Temperature: -55°C – 85°C (to 125°C with voltage derating)



| Size Code Inches (mm) | Case Code | Dimensions — mm | | | | | |
|-----------------------|-----------|---------------------|------------|-------------|-----------------|-------------|------------------|
| | | L | W | H | P1 | P2 (Ref.) | C |
| 0603 (1605) | M | 1.60 ±0.15 | 0.84 ±0.15 | 0.84 ±0.15 | 0.51 ±0.1 | 0.48 (min.) | 0.61 ±0.1 |
| 0805 (2012) | L | 2.05 ±0.2 | 1.3 ±0.10 | 1.0 (max.) | 0.50 ±0.1 | 0.70 (min.) | 0.9 +0.23/-0.02 |
| | R | 2.06 ±0.15 | 1.35 ±0.15 | 1.47 ±0.10 | 0.51 ±0.1 | 0.71 (min.) | 0.90 ±0.1 |
| | W | 2.06 ±0.15 | 1.35 ±0.15 | 1.2 (max.) | 0.51 ±0.1 | 0.71 (min.) | 0.90 ±0.1 |
| — (3528) | T | 3.505 +1.101/-0.203 | 2.80 ±0.1 | 1.52 (max.) | 0.80 +0.1/-0.15 | 2.24 ±0.25 | 2.3 +0.23/-0.025 |
| — | P | 2.45 ±0.15 | 1.5 ±0.15 | 1.25 (max.) | 0.51 ±0.1 | 1.1 (min.) | 0.90 ±0.1 |

| Rated Voltage (V) | Case Code | Capacitance (µF) | Max. DC Leakage @ 25°C (µA) | Max. DF @ 25°C (%) | Max. ESR @ 25°C 100kHz (Ω) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | Tape and Reel Pricing 300 | Vishay Part No. |
|-------------------|-----------|------------------|-----------------------------|--------------------|----------------------------|-------------------|---------------------|-------|-------|-------------------|---------------------------|-----------------|
| | | | | | | | 1 | 10 | 100 | | | |
| 6.3 | M | 10 | 0.32 | 8 | 5.0 | 718-1721-1-ND | 15.65 | 14.65 | 12.63 | 718-1721-2-ND | 2196.63 | TM8M106K6R3UBA |
| | M | 15 | 0.47 | 8 | 5.0 | 718-1722-1-ND | 15.65 | 14.65 | 12.63 | 718-1722-2-ND | 2196.63 | TM8M156K6R3UBA |
| 10 | M | 1.0 | 0.20 | 6 | 12.0 | 718-1723-1-ND | 15.65 | 14.65 | 12.63 | 718-1723-2-ND | 2196.63 | TM8M105K010UBA |
| | M | 4.7 | 0.24 | 8 | 6.0 | 718-1724-1-ND | 15.65 | 14.65 | 12.63 | 718-1724-2-ND | 2196.63 | TM8M475K010UBA |
| | L | 7.5 | 0.38 | 8 | 8.0 | 718-1725-1-ND | 16.53 | 15.46 | 13.33 | 718-1725-2-ND | 2318.83 | TM8L755K010UBA |
| | R | 10 | 0.50 | 8 | 6.0 | 718-1726-1-ND | 16.35 | 15.30 | 13.19 | 718-1726-2-ND | 2294.26 | TM8R106K010UBA |
| | T | 47 | 2.35 | 8 | 1.0 | 718-1727-1-ND | 16.70 | 15.62 | 13.47 | 718-1727-2-ND | 2343.07 | TM8T476K010UBA |
| 16 | M | 1.0 | 0.20 | 6 | 12.0 | 718-1728-1-ND | 15.65 | 14.65 | 12.63 | 718-1728-2-ND | 2196.63 | TM8M105K016UBA |
| | R | 10 | 0.80 | 8 | 6.0 | 718-1729-1-ND | 16.00 | 14.97 | 12.91 | 718-1729-2-ND | 2245.44 | TM8R106K016UBA |
| 20 | W | 1.0 | 0.20 | 8 | 8.0 | 718-1730-1-ND | 16.42 | 15.36 | 13.25 | 718-1730-2-ND | 2304.02 | TM8W105K020UBA |
| | R | 3.3 | 0.33 | 8 | 8.0 | 718-1731-1-ND | 16.00 | 14.97 | 12.91 | 718-1731-2-ND | 2245.44 | TM8R335K020UBA |
| 25 | R | 1.0 | 0.20 | 6 | 10.0 | 718-1732-1-ND | 16.00 | 14.97 | 12.91 | 718-1732-2-ND | 2245.44 | TM8R105K025UBA |
| | P | 4.7 | 0.59 | 6 | 6.0 | 718-1733-1-ND | 16.00 | 14.97 | 12.91 | 718-1733-2-ND | 2245.44 | TM8P475K025UBA |
| 40 | P | 1.0 | 0.20 | 8 | 10.0 | 718-1735-1-ND | 16.00 | 14.97 | 12.91 | 718-1735-2-ND | 2245.44 | TM8P105K040UBA |

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