

COPAL ELECTRONICS

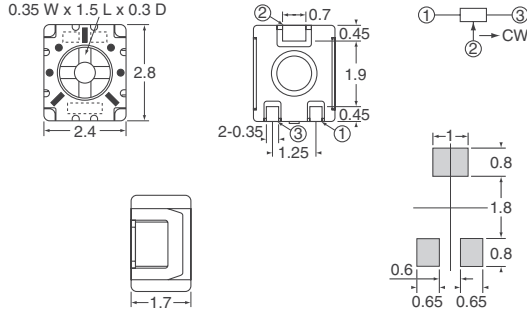
Cermet Potentiometers



Model ST2

Surface Mount, 2mm Squared Single-Turn

ST2A - J Lead, Top Adjustment



FEATURES: • Lead-free soldering, Cadmium-free • Compact and low-profile • Washable **ELECTRICAL:** Resistance Tolerance: ±20% Temperature Coefficient: ±150 ppm/°C Power Ratings: 0.1W at 70°C; 0W at 125°C Input Voltage Maximum: 50VDC or power rating, whichever is less Wiper Current Maximum: Power Ratings (I = √P/R A) Effective Electrical Angle: 240° (1 turn) End Resistance: 1% or 2Ω, whichever is greater Contact Resistance Variation: 2% or 3Ω, whichever is greater Operating Temperature Range: -55°C - 125°C Minimum Insulation Resistance: 1000MΩ at 500VDC Dielectric Strength: 500VAC, 1 minute **MECHANICAL:** Mechanical Angle: 270° (1 turn) Maximum Operating Torque: 5mN.m (51 gf.cm) Minimum Stop Strength: 8mN.m (78.4 gf.cm) Rotational Life: 50 cycles (▲ R/R ≤ (2 Ω + 5%) Solderability: 245 ±3°C, 2-3 seconds

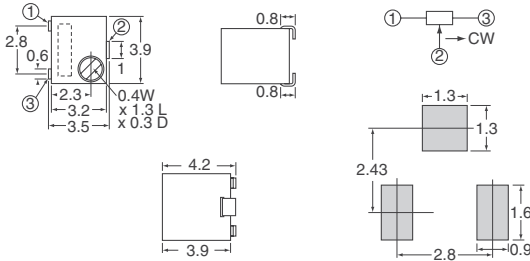
| Resistance (Ω) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | T&R Pricing 500 |
|----------------|-------------------|---------------------|------|------|-------------------|-----------------|
| | | 1 | 10 | 100 | | |
| 100 | ST2TA101CT-ND | 3.30 | 3.07 | 2.77 | ST2TA101TR-ND | 1177.00 |
| 200 | ST2TA201CT-ND | 3.30 | 3.07 | 2.77 | ST2TA201TR-ND | 1177.00 |
| 500 | ST2TA501CT-ND | 3.30 | 3.07 | 2.77 | ST2TA501TR-ND | 1177.00 |
| 1K | ST2TA102CT-ND | 3.30 | 3.07 | 2.77 | ST2TA102TR-ND | 1177.00 |
| 2K | ST2TA202CT-ND | 3.30 | 3.07 | 2.77 | ST2TA202TR-ND | 1177.00 |
| 5K | ST2TA502CT-ND | 3.30 | 3.07 | 2.77 | ST2TA502TR-ND | 1177.00 |
| 10K | ST2TA103CT-ND | 3.30 | 3.07 | 2.77 | ST2TA103TR-ND | 1177.00 |
| 20K | ST2TA203CT-ND | 3.30 | 3.07 | 2.77 | ST2TA203TR-ND | 1177.00 |
| 50K | ST2TA503CT-ND | 3.30 | 3.07 | 2.77 | ST2TA503TR-ND | 1177.00 |
| 100K | ST2TA104CT-ND | 3.30 | 3.07 | 2.77 | ST2TA104TR-ND | 1177.00 |
| 200K | ST2TA204CT-ND | 3.30 | 3.07 | 2.77 | ST2TA204TR-ND | 1177.00 |
| 500K | ST2TA504CT-ND | 3.30 | 3.07 | 2.77 | ST2TA504TR-ND | 1177.00 |
| 1 Meg | ST2TA105CT-ND | 3.30 | 3.07 | 2.77 | ST2TA105TR-ND | 1177.00 |

Units Marked with Resistance Code and 2-Digit Date Code.

Model SM3

Surface Mount, 3mm Squared Multi-Turn

SM3TW - J Lead, Top Adjustment



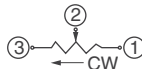
FEATURES: • Lead-free soldering, Cadmium-free • Fine adjustment • Automatic mounting • Flow/reflow soldering • Sealed construction (Washable) **ELECTRICAL:** Resistance Tolerance: ±20% Maximum Temperature Coefficient: ±100 ppm/°C Power Ratings: 0.125W at 70°C; 0W at 150°C Input Voltage Maximum: 200VDC or power rating, whichever is less Wiper Current Maximum: 100mA or power rating, whichever is less Effective Electrical Turn: 11 turns End Resistance: 1% or 3Ω, whichever is greater Contact Resistance Variation: 3% or 3Ω, whichever is greater Operating Temperature Range: -65°C - 150°C Minimum Insulation Resistance: 100MΩ at 500VDC Dielectric Strength: 600VAC, 1 minute **MECHANICAL:** Maximum Operating Torque: 5mN.m (51gf.cm) Mechanical Stop: Clutch action Rotational Life: 200 cycles (▲ R/R ≤ ±(2Ω + 3%) Minimum Thrust to Shaft: 5N (0.51kgf) Solderability: 245 ±3°C, 2-3 seconds

| Resistance (Ω) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | T&R Pricing 500 |
|----------------|-------------------|---------------------|------|------|-------------------|-----------------|
| | | 1 | 10 | 100 | | |
| 100 | SM-3TW101CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW101TR-ND | 1037.00 |
| 500 | SM-3TW501CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW501TR-ND | 1037.00 |
| 1K | SM-3TW102CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW102TR-ND | 1037.00 |
| 2K | SM-3TW202CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW202TR-ND | 1037.00 |
| 5K | SM-3TW502CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW502TR-ND | 1037.00 |
| 10K | SM-3TW103CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW103TR-ND | 1037.00 |
| 20K | SM-3TW203CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW203TR-ND | 1037.00 |
| 50K | SM-3TW503CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW503TR-ND | 1037.00 |
| 100K | SM-3TW104CT-ND | 2.90 | 2.70 | 2.44 | SM-3TW104TR-ND | 1037.00 |

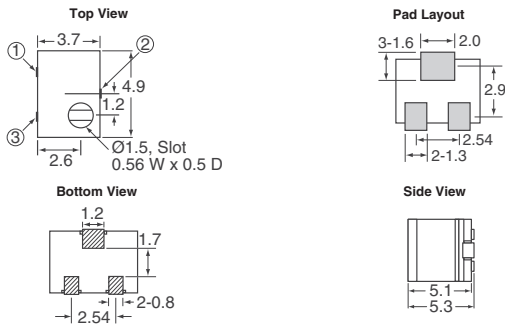
Units Marked with Resistance Code and 2-Digit Date Code.

Model SM4

Surface Mount 4mm, 12-Turn, Sealed

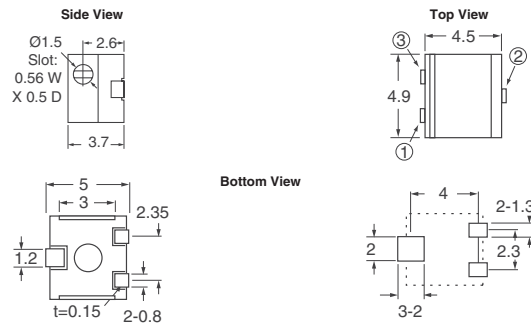


SM4ETW - J Lead, Top Adjustment



FEATURES: • Lead-free soldering, Cadmium-free • Fine adjustment • Automatic mounting • Flow/reflow soldering • Sealed construction (Washable) **ELECTRICAL:** Resistance Tolerance: ±10% Maximum Temperature Coefficient: ±100 ppm/°C Power Ratings: 0.25W at 85°C; 0W at 150°C Maximum Input Voltage: 300VDC or power rating, whichever is less Maximum Wiper Current: 100mA or power rating, whichever is less Effective Electrical Turn: 10 turns End Resistance: 1% or 2Ω, whichever is greater Contact Resistance Variation: 1% or 3Ω, whichever is greater Operating Temperature Range: -65°C - 150°C Minimum Insulation Resistance: 1000MΩ at 500VDC Dielectric Strength: 600VAC, 1 minute **MECHANICAL:** Mechanical Turn: 12 turns Maximum Operating Torque: 20mN.m (204gf.cm) Mechanical Stop: Clutch action Rotational Life: 200 cycles; (▲ R/R ≤ ±(3Ω + 3%)

SM4ETA - J Lead, Side Adjustment



| Resistance (Ω) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | T&R Pricing 250 |
|----------------|-------------------|---------------------|------|------|-------------------|-----------------|
| | | 1 | 10 | 100 | | |
| 100 | SM4ETW101CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW101TR-ND | 529.25 |
| 200 | SM4ETW201CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW201TR-ND | 529.25 |
| 500 | SM4ETW501CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW501TR-ND | 529.25 |
| 1K | SM4ETW102CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW102TR-ND | 529.25 |
| 2K | SM4ETW202CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW202TR-ND | 529.25 |
| 5K | SM4ETW502CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW502TR-ND | 529.25 |
| 10K | SM4ETW103CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW103TR-ND | 529.25 |
| 20K | SM4ETW203CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW203TR-ND | 529.25 |
| 50K | SM4ETW503CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW503TR-ND | 529.25 |
| 100K | SM4ETW104CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW104TR-ND | 529.25 |
| 200K | SM4ETW204CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW204TR-ND | 529.25 |
| 500K | SM4ETW504CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW504TR-ND | 529.25 |
| 1 Meg | SM4ETW105CT-ND | 2.96 | 2.76 | 2.49 | SM4ETW105TR-ND | 529.25 |

Units Marked with Resistance Code and 2-Digit Date Code.

| Resistance (Ω) | Digi-Key Part No. | Cut Tape Price Each | | | Digi-Key Part No. | T&R Pricing 500 |
|----------------|-------------------|---------------------|------|------|-------------------|-----------------|
| | | 1 | 10 | 100 | | |
| 100 | SM4ETA101CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA101TR-ND | 1058.50 |
| 200 | SM4ETA201CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA201TR-ND | 1058.50 |
| 500 | SM4ETA501CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA501TR-ND | 1058.50 |
| 1K | SM4ETA102CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA102TR-ND | 1058.50 |
| 2K | SM4ETA202CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA202TR-ND | 1058.50 |
| 5K | SM4ETA502CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA502TR-ND | 1058.50 |
| 10K | SM4ETA103CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA103TR-ND | 1058.50 |
| 20K | SM4ETA203CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA203TR-ND | 1058.50 |
| 50K | SM4ETA503CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA503TR-ND | 1058.50 |
| 100K | SM4ETA104CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA104TR-ND | 1058.50 |
| 200K | SM4ETA204CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA204TR-ND | 1058.50 |
| 500K | SM4ETA504CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA504TR-ND | 1058.50 |
| 1 Meg | SM4ETA105CT-ND | 2.96 | 2.76 | 2.49 | SM4ETA105TR-ND | 1058.50 |

(Continued)

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