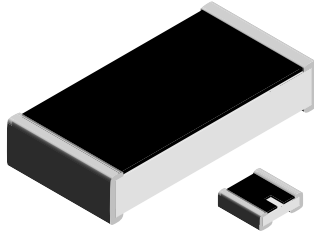


## Thick Film Chip Resistors, Industrial



### FEATURES

- Operating temperature range: - 55 °C to + 150 °C
- Same materials and construction as MIL-PRF-55342 chip resistors
- Termination: Tin/Lead wraparound termination over nickel barrier. Also available with lead (Pb)-free wraparound terminations.
- Capability to develop specific reliability programs designed to customer requirements
- Size, value, packaging and materials can be customized for special customer requirements.



| STANDARD ELECTRICAL SPECIFICATIONS |                  |   |                           |                                   |                            |                       |
|------------------------------------|------------------|---|---------------------------|-----------------------------------|----------------------------|-----------------------|
| GLOBAL MODEL                       | HISTORICAL MODEL | POWER RATING<br>$P_{70\text{ }^{\circ}\text{C}}$<br>(W 1)                                   | MAXIMUM OPERATING VOLTAGE | TEMPERATURE COEFFICIENT<br>ppm/°C | TOLERANCE %                | RESISTANCE RANGE<br>Ω |
| RCWP0502                           | RCWP-0502        | 0.02  | 40                        | 300<br>100, 300                   | ± 2 to ± 10<br>± 1 to ± 10 | 1 - 9.1<br>10 - 22M   |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 30 \text{ m}\Omega$ , $I_{\text{max}} = 1.3 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0302                           | RCWP-0302        | 0.04  | 15                        | 300<br>100, 300                   | ± 5 to ± 10<br>± 1 to ± 10 | 1 - 9.1<br>10 - 22M   |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 30 \text{ m}\Omega$ , $I_{\text{max}} = 1.1 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0402                           | RCWP-0402        | 0.04  | 25                        | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 30 \text{ m}\Omega$ , $I_{\text{max}} = 1.2 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0603                           | RCWP-0603        | 0.07  | 50                        | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 30 \text{ m}\Omega$ , $I_{\text{max}} = 1.5 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0540                           | RCWP-540         | 0.08  | 40                        | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 20 \text{ m}\Omega$ , $I_{\text{max}} = 2.2 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0550                           | RCWP-550         | 0.10  | 50                        | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 20 \text{ m}\Omega$ , $I_{\text{max}} = 2.2 \text{ A}$ |                           |                                   |                            |                       |
| RCWP0575                           | RCWP-575         | 0.15  | 70                        | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 20 \text{ m}\Omega$ , $I_{\text{max}} = 2.7 \text{ A}$ |                           |                                   |                            |                       |
| RCWP5100                           | RCWP-5100        | 0.20  | 100                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 25 \text{ m}\Omega$ , $I_{\text{max}} = 2.8 \text{ A}$ |                           |                                   |                            |                       |
| RCWP1206                           | RCWP-1206        | 0.25  | 100                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 25 \text{ m}\Omega$ , $I_{\text{max}} = 3.2 \text{ A}$ |                           |                                   |                            |                       |
| RCWP5150                           | RCWP-5150        | 0.35  | 125                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 35 \text{ m}\Omega$ , $I_{\text{max}} = 2.1 \text{ A}$ |                           |                                   |                            |                       |
| RCWP1100                           | RCWP-1100        | 0.50  | 100                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 20 \text{ m}\Omega$ , $I_{\text{max}} = 5 \text{ A}$   |                           |                                   |                            |                       |
| RCWP7225                           | RCWP-7225        | 0.60  | 200                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 35 \text{ m}\Omega$ , $I_{\text{max}} = 2.5 \text{ A}$ |                           |                                   |                            |                       |
| RCWP2010                           | RCWP-2010        | 0.80  | 200                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 25 \text{ m}\Omega$ , $I_{\text{max}} = 5.7 \text{ A}$ |                           |                                   |                            |                       |
| RCWP2512                           | RCWP-2512        | 1.0   | 200                       | 100, 300                          | ± 1 to ± 10                | 1 - 22M               |
|                                    |                  | Zero-Ohm Resistor: $R_{\text{max}} = 25 \text{ m}\Omega$ , $I_{\text{max}} = 6.3 \text{ A}$ |                           |                                   |                            |                       |

**Notes:**

1. Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.
- Consult factory for extended resistance range.



**GLOBAL PART NUMBER INFORMATION**

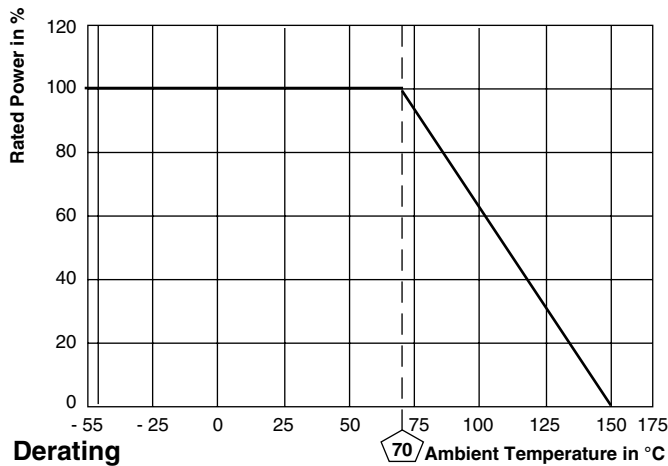
New Global Part Numbering: RCWP510010K0GMWB (preferred part numbering format)

**R** **C** **W** **P** **5** **1** **0** **0** **1** **0** **K** **0** **G** **M** **W** **B**

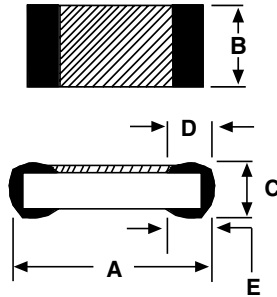
| GLOBAL MODEL                                   | RESISTANCE VALUE  | TOLERANCE CODE   | TEMPERATURE COEFFICIENT   | PACKAGING CODE   | SPECIAL   |
|--|---|--|---|--|---|
| (see Standard Electrical Specifications table) | <b>R</b> = Decimal<br><b>K</b> = Thousand<br><b>M</b> = Million<br><b>10R0</b> = 10 Ω<br><b>1K30</b> = 1.3 kΩ<br><b>1M00</b> = 1.0 MΩ<br><b>0000</b> = 0 Ω Jumper | <b>F</b> = ± 1 %<br><b>G</b> = ± 2 %<br><b>J</b> = ± 5 %<br><b>K</b> = ± 10 %<br><b>Z</b> = 0 Ω Jumper | <b>K</b> = 100 ppm<br><b>M</b> = 300 ppm<br><b>S</b> = Special,<br>0 Ω Jumper | <b>TP</b> = Tin/Lead, T/R (Full)<br><b>S3</b> = Tin/Lead, T/R (1000 pieces)<br><b>WB</b> = Tin/Lead, Tray<br><b>S2</b> = Tin/Lead, T/R (500 pieces)<br><b>S6</b> = Tin/Lead, T/R (300 pieces)<br><br><b>EA</b> = Lead (Pb)-free, T/R (Full)<br><b>EB</b> = Lead (Pb)-free, T/R (1000 pieces)<br><b>ET</b> = Lead (Pb)-free, Tray<br><b>EC</b> = Lead (Pb)-free, T/R (500 pieces)<br><b>ED</b> = Lead (Pb)-free, T/R (300 pieces) | Blank = Standard (Dash Number) (up to 2 digits)<br>From <b>1 - 99</b> as applicable<br><b>99</b> = 0 Ω Jumper |

Historical Part Number: RCWP-5100103G (will continue to be accepted)

|                  |                  |                |                |
|------------------|------------------|----------------|----------------|
| <b>RCWP-5100</b> | <b>103</b>       | <b>G</b>       | <b>T03</b>     |
| HISTORICAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING CODE |



**DIMENSIONS** in inches [millimeters]



| GLOBAL MODEL | A (Length)                     | B (Width)                      | C (Height)                     | D (Top Term)                   | E (Bottom Term)                |
|--------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| RCWP0302     | 0.034 ± 0.004<br>[0.86 ± 0.10] | 0.021 ± 0.003<br>[0.53 ± 0.08] | 0.015 ± 0.003<br>[0.38 ± 0.08] | 0.007 ± 0.005<br>[0.18 ± 0.13] | 0.008 ± 0.005<br>[0.20 ± 0.13] |
| RCWP0402     | 0.039 ± 0.003<br>[0.99 ± 0.08] | 0.020 ± 0.003<br>[0.51 ± 0.08] | 0.013 ± 0.003<br>[0.33 ± 0.08] | 0.010 ± 0.005<br>[0.25 ± 0.13] | 0.010 ± 0.005<br>[0.25 ± 0.13] |
| RCWP0502     | 0.055 ± 0.005<br>[1.40 ± 0.13] | 0.023 ± 0.003<br>[0.58 ± 0.08] | 0.015 ± 0.003<br>[0.38 ± 0.08] | 0.010 ± 0.005<br>[0.25 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP0540     | 0.055 ± 0.005<br>[1.40 ± 0.13] | 0.040 ± 0.005<br>[1.02 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.010 ± 0.005<br>[0.25 ± 0.13] | 0.010 ± 0.005<br>[0.25 ± 0.13] |
| RCWP0550     | 0.055 ± 0.005<br>[1.40 ± 0.13] | 0.050 ± 0.005<br>[1.27 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.010 ± 0.005<br>[0.25 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP0575     | 0.080 ± 0.005<br>[2.03 ± 0.13] | 0.050 ± 0.005<br>[1.27 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP0603     | 0.063 ± 0.005<br>[1.60 ± 0.13] | 0.032 ± 0.005<br>[0.81 ± 0.13] | 0.018 ± 0.005<br>[0.46 ± 0.13] | 0.012 ± 0.005<br>[0.31 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP1100     | 0.105 ± 0.005<br>[2.67 ± 0.13] | 0.100 ± 0.005<br>[2.54 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP1206     | 0.125 ± 0.005<br>[3.18 ± 0.13] | 0.063 ± 0.005<br>[1.60 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP2010     | 0.197 ± 0.006<br>[5.00 ± 0.15] | 0.098 ± 0.005<br>[2.49 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] |
| RCWP2512     | 0.250 ± 0.006<br>[6.35 ± 0.15] | 0.124 ± 0.005<br>[3.15 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] |
| RCWP5100     | 0.105 ± 0.005<br>[2.67 ± 0.13] | 0.050 ± 0.005<br>[1.27 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP5150     | 0.155 ± 0.005<br>[3.94 ± 0.13] | 0.050 ± 0.005<br>[1.27 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] | 0.015 ± 0.005<br>[0.38 ± 0.13] |
| RCWP7225     | 0.230 ± 0.005<br>[5.84 ± 0.13] | 0.075 ± 0.005<br>[1.91 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] | 0.020 ± 0.005<br>[0.51 ± 0.13] |



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