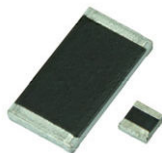


Thick Film Chip Resistors, Zero Ohm Jumper, Industrial / High Reliability



MATERIAL SPECIFICATIONS

| | |
|-------------------|-------------------------------------|
| Resistive element | Conductive metal |
| Encapsulation | Epoxy |
| Substrate | 96 % alumina |
| Termination | Solder-coated nickel barrier |
| Solder finish | Pure tin or tin / lead solder alloy |

FEATURES

- Same materials and construction as MIL-PRF-32159 jumpers
- Undergoes group A testing to MIL-PRF-32159 (precap visual inspection, thermal shock, DC resistance, 100 % visual inspection) prior to shipping
- 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, packaging and materials can be customized for special customer requirements
- Operating temperature range: -65 °C to +155 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS*
Available
**HALOGEN
FREE**

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | HISTORICAL MODEL | CASE SIZE | POWER RATING ⁽¹⁾ $P_{70\text{ }^{\circ}\text{C}}$ W | CURRENT RATING A | MAXIMUM RESISTANCE Ω |
|---------------|------------------|---------------------|--|---------------------|--------------------------------|
| RCWP0201...99 | RCWP-0201-99 | 0201 | 0.05 | 0.5 | 50m |
| RCWP0302...99 | RCWP-0302-99 | 0302 | 0.04 | 1.1 | 30m |
| RCWP0402...99 | RCWP-0402-99 | 0402 | 0.05 | 1.2 | 30m |
| RCWP0502...99 | RCWP-0502-99 | 0502 | 0.05 | 1.3 | 30m |
| RCWP0540...99 | RCWP-540-99 | 0504 | 0.08 | 2.2 | 20m |
| RCWP0603...99 | RCWP-0603-99 | 0603 | 0.10 | 1.5 | 30m |
| RCWP0550...99 | RCWP-550-99 | 0505 | 0.125 | 2.2 | 20m |
| RCWP0575...99 | RCWP-575-99 | 0705 ⁽²⁾ | 0.15 | 2.7 | 20m |
| RCWP5100...99 | RCWP-5100-99 | 1005 | 0.20 | 2.8 | 25m |
| RCWP1206...99 | RCWP-1206-99 | 1206 | 0.25 | 3.2 | 25m |
| RCWP5150...99 | RCWP-5150-99 | 1505 | 0.35 | 2.1 | 35m |
| RCWP1100...99 | RCWP-1100-99 | 1010 | 0.50 | 5.0 | 20m |
| RCWP1210...99 | RCWP-1210-99 | 1210 | 0.50 | 5.0 | 20m |
| RCWP7225...99 | RCWP-7225-99 | 2208 | 0.60 | 2.5 | 35m |
| RCWP2010...99 | RCWP-2010-99 | 2010 | 0.80 | 5.7 | 25m |
| RCWP2512...99 | RCWP-2512-99 | 2512 | 1.0 | 6.3 | 25m |

Notes

⁽¹⁾ Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material

⁽²⁾ MIL case size 0705 and EIA case size 0805 are dimensionally the same

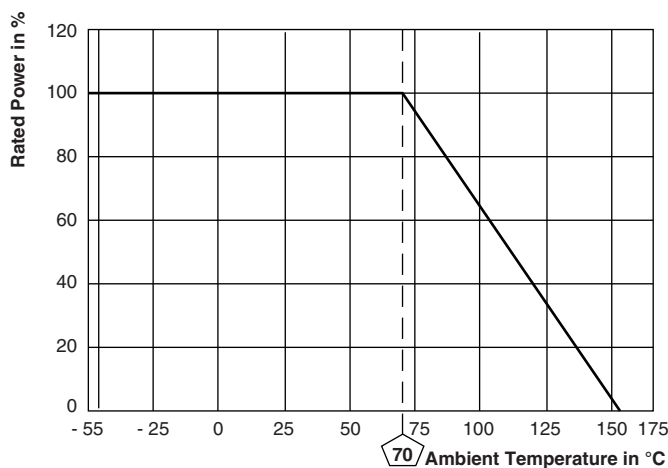
**GLOBAL PART NUMBER INFORMATION**

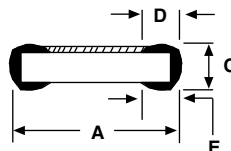
New Global Part Numbering: RCWP5100000ZSWB99 (preferred part numbering format)

| | | | | | | | | | | | | | | | | | | | |
|---|---|---------------------------------------|---|----------------------------------|---|--|---|--|---|---|---|---|---|---|---|---|---|----------------------------|--|
| R | C | W | P | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | Z | S | W | B | 9 | 9 | | |
| GLOBAL MODEL (see Standard Electrical Specifications table) | | RESISTANCE VALUE 0000 = 0 Ω jumper | | TOLERANCE CODE Z = 0 Ω jumper | | TEMPERATURE COEFFICIENT S = special, 0 Ω jumper | | PACKAGING CODE ⁽¹⁾ TP = tin / lead, T/R, plastic tape (full reel; all except 0201 and 1210) S3 = tin / lead, T/R, plastic tape (1000 pieces; all except 0201 and 1210) WB = tin / lead, waffle tray S2 = tin / lead, T/R, plastic tape (500 pieces; all except 0201 and 1210) S6 = tin / lead, T/R, plastic tape (300 pieces; all except 0201 and 1210) UA = tin / lead, T/R, paper tape (full reel; 0201 and 1210 only) UD = tin / lead, T/R, paper tape (1000 pieces; 0201 and 1210 only) UC = tin / lead, T/R, paper tape (500 pieces; 0201 and 1210 only) UB = tin / lead, T/R, paper tape (300 pieces; 0201 and 1210 only) EA = lead (Pb)-free, T/R (full) EB = lead (Pb)-free, T/R (1000 pieces) ET = lead (Pb)-free, waffle tray EC = lead (Pb)-free, T/R (500 pieces) ED = lead (Pb)-free, T/R (300 pieces) | | | | | | | | | | SPECIAL 99 = 0 Ω jumper | |
| Historical Part Number: RCWP-5100-99 (will continue to be accepted) | | | | | | | | | | | | | | | | | | | |
| RCWP-5100-99 | | | | | | | | | | | | | | | | | | | |
| HISTORICAL MODEL | | | | | | | | | | | | | | | | | | | |
| T03 | | | | | | | | | | | | | | | | | | | |
| PACKAGING CODE | | | | | | | | | | | | | | | | | | | |

Notes

- For additional information on packaging, refer to the Surface Mount Resistor Packaging document (www.vishay.com/doc?31543)
- (1) Tape and reel packaging with plastic tape standard for all case sizes except 0201 and 1210. For the 0201 and 1210 case sizes, the product is only offered in tape and reel packaging with paper tape

DERATING CURVE

DIMENSIONS in inches (millimeters)


| GLOBAL MODEL | A (LENGTH) | B (WIDTH) | C (HEIGHT) | D (TOP TERM) | E (BOTTOM TERM) |
|---------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---|
| RCWP0201...99 | 0.024 ± 0.002 (0.61 ± 0.05) | 0.012 ± 0.002 (0.30 ± 0.05) | 0.009 ± 0.002 (0.23 ± 0.05) | 0.006 ± 0.003 (0.15 ± 0.08) | 0.006 ± 0.002 - 0.004 (0.15 ± 0.05 - 0.10) |
| RCWP0302...99 | 0.034 ± 0.004 (0.86 ± 0.10) | 0.021 ± 0.003 (0.53 ± 0.08) | 0.013 ± 0.003 (0.33 ± 0.08) | 0.007 ± 0.005 (0.18 ± 0.13) | 0.008 ± 0.005 (0.20 ± 0.13) |
| RCWP0402...99 | 0.039 ± 0.003 (0.99 ± 0.08) | 0.020 ± 0.003 (0.51 ± 0.08) | 0.013 ± 0.003 (0.33 ± 0.08) | 0.010 ± 0.005 (0.25 ± 0.13) | 0.010 ± 0.005 (0.25 ± 0.13) |
| RCWP0502...99 | 0.055 ± 0.005 (1.40 ± 0.13) | 0.023 ± 0.003 (0.58 ± 0.08) | 0.015 ± 0.003 (0.38 ± 0.08) | 0.010 ± 0.005 (0.25 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP0540...99 | 0.055 ± 0.005 (1.40 ± 0.13) | 0.040 ± 0.005 (1.02 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.010 ± 0.005 (0.25 ± 0.13) | 0.010 ± 0.005 (0.25 ± 0.13) |
| RCWP0550...99 | 0.055 ± 0.005 (1.40 ± 0.13) | 0.050 ± 0.005 (1.27 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.010 ± 0.005 (0.25 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP0575...99 | 0.080 ± 0.005 (2.03 ± 0.13) | 0.050 ± 0.005 (1.27 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.016 ± 0.008 (0.41 ± 0.20) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP0603...99 | 0.063 ± 0.005 (1.60 ± 0.13) | 0.032 ± 0.005 (0.81 ± 0.13) | 0.018 ± 0.005 (0.46 ± 0.13) | 0.012 ± 0.005 (0.30 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP1100...99 | 0.105 ± 0.005 (2.67 ± 0.13) | 0.100 ± 0.005 (2.54 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP1206...99 | 0.125 ± 0.005 (3.18 ± 0.13) | 0.063 ± 0.005 (1.60 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP1210...99 | 0.126 ± 0.008 (3.20 ± 0.20) | 0.098 ± 0.008 (2.50 ± 0.20) | 0.022 ± 0.002 (0.55 ± 0.05) | 0.016 ± 0.008 (0.40 ± 0.20) | 0.018 ± 0.008 (0.45 ± 0.20) |
| RCWP2010...99 | 0.197 ± 0.006 (5.00 ± 0.15) | 0.098 ± 0.005 (2.49 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) |
| RCWP2512...99 | 0.250 ± 0.006 (6.35 ± 0.15) | 0.124 ± 0.005 (3.15 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) |
| RCWP5100...99 | 0.105 ± 0.005 (2.67 ± 0.13) | 0.050 ± 0.005 (1.27 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP5150...99 | 0.155 ± 0.005 (3.94 ± 0.13) | 0.050 ± 0.005 (1.27 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) | 0.015 ± 0.005 (0.38 ± 0.13) |
| RCWP7225...99 | 0.230 ± 0.005 (5.84 ± 0.13) | 0.075 ± 0.005 (1.91 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) | 0.020 ± 0.005 (0.51 ± 0.13) |



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