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 / ead 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

Pb Available
e3
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] $P_{70\,°C}$ 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

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GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: RCWP51000000ZSWB99 (preferred part numbering format)

R	C	W	P	5	1	0	0	0	0	0	0	Z	S	W	B	9	9

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	TEMPERATURE COEFFICIENT	PACKAGING CODE [1]	SPECIAL
(see Standard Electrical Specifications table)	**0000** = 0 Ω jumper	**Z** = 0 Ω jumper	**S** = special, 0 Ω jumper	**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)	**99** = 0 Ω jumper

Historical Part Number: RCWP-5100-99 (will continue to be accepted)

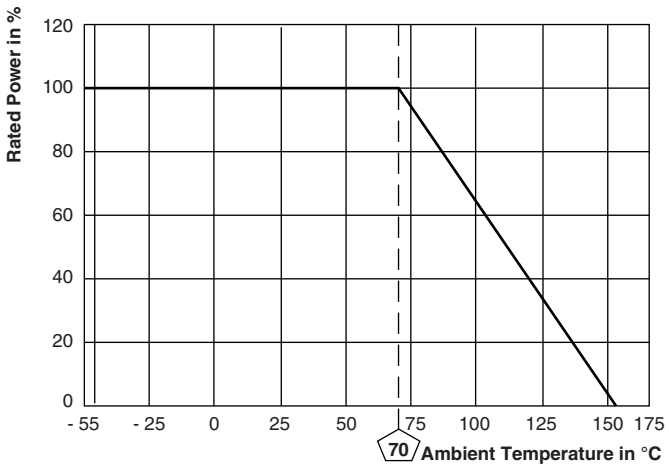
RCWP-5100-99	T03
HISTORICAL MODEL	PACKAGING CODE

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



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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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