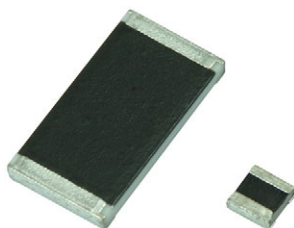




Vishay Green Thick Film Chip Resistors, Industrial / High Reliability



FEATURES

- Undergoes group A testing to MIL-PRF-55342 (precap visual inspection, thermal shock, DC resistance, 100 % visual inspection) prior to shipping
- RoHS compliant without exemption
- Termination: tin wraparound termination over nickel barrier
- Capability to develop specific reliability programs designed to customer requirements
- Size, value, packaging and materials can be customized for special customer requirements
- Operating temperature range: -55 °C to +155 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)
Available

MATERIAL SPECIFICATIONS

Resistive element	Ruthenium oxide
Encapsulation	Epoxy
Substrate	96 % alumina
Termination	Solder-coated nickel barrier
Solder finish	Pure tin solder alloy

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	CASE SIZE (1)	POWER RATING (2) $P_{70^{\circ}\text{C}}$ W	MAXIMUM WORKING VOLTAGE (3) V	RESISTANCE RANGE Ω	TOLERANCE $\pm \%$	TEMPERATURE COEFFICIENT $\pm \text{ppm}/^{\circ}\text{C}$
RCWG0402	RCWG-0402	0402	0.05	30	5.6 to 1K	2, 5, 10	200, 300
					> 1K to 10M	0.5, 1, 2, 5, 10	100
RCWG0603	RCWG-0603	0603	0.10	50	5.6 to 10M	0.5, 1, 2, 5, 10	100, 200, 300
RCWG0575	RCWG-575	0705	0.15	70	5.6 to 10M	0.5, 1, 2, 5, 10	100, 200, 300
RCWG1206	RCWG-1206	1206	0.25	100	5.6 to 10M	0.5, 1, 2, 5, 10	100, 200, 300
RCWG2010	RCWG-2010	2010	0.80	200	5.6 to 10M	0.5, 1, 2, 5, 10	100, 200, 300
RCWG2512	RCWG-2512	2512	1.0	200	5.6 to 10M	0.5, 1, 2, 5, 10	100, 200, 300

Notes

- Consult factory for extended resistance range
- (1) MIL case size 0705 and EIA case size 0805 are dimensionally the same
- (2) Power rating depends on the maximum temperature at the solder point, the component placement density and the substrate material
- (3) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less

GLOBAL PART NUMBER INFORMATION

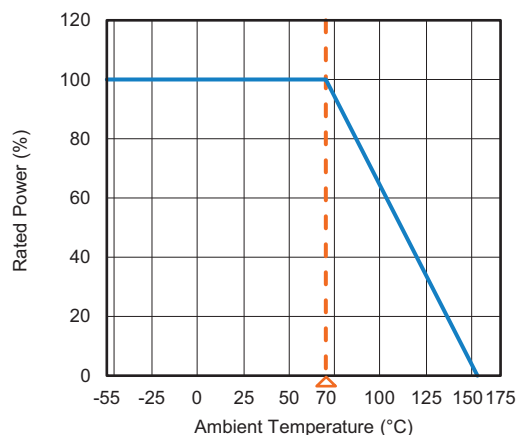
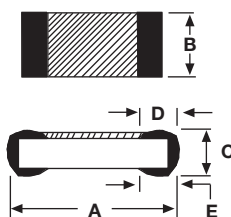
New Global Part Numbering: RCWG120610R0FKEB

R	C	W	G	1	2	0	6	1	0	R	0	F	K	E	B		
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GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	TEMPERATURE COEFFICIENT	PACKAGING CODE	SPECIAL
(see Standard Electrical Specifications table)	R = Ω K = k Ω M = M Ω 10R0 = 10 Ω 1K30 = 1.3 k Ω 1M00 = 1.0 M Ω	D = $\pm 0.5 \%$ F = $\pm 1 \%$ G = $\pm 2 \%$ J = $\pm 5 \%$ K = $\pm 10 \%$	K = 100 ppm N = 200 ppm M = 300 ppm	E5 = lead (Pb)-free, SLDC T/R (500 pieces) 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)	Blank = standard (dash number) (up to 2 digits) from 1 to 99 as applicable

Note

- For additional information on packaging, refer to the Surface Mount Resistor Packaging document (www.vishay.com/doc?31543)

DERATING CURVE

DIMENSIONS in inches (millimeters)


GLOBAL MODEL	A (LENGTH)	B (WIDTH)	C (HEIGHT)	D (TOP TERM)	E (BOTTOM TERM)
RCWG0402	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)
RCWG0603	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)
RCWG0575	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)
RCWG1206	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)
RCWG2010	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)
RCWG2512	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)



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