

HALOGEN

FREE



www.vishay.com

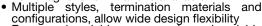
Vishay Techno

Thick Film Chip Resistors, Alternate Terminations



FEATURES

- Suitable for solderable, epoxy bondable, or wire bondable applications
- Termination material: gold, platinum silver, platinum palladium gold or solder coated non-magnetic terminations available



 Epoxy bondable or wire bondable non-magnetic terminations available

Flow solderable

- Custom sizes available
- Burn-in data available
- Automatic placement capability
- Termination style: 3-sided wraparound termination or single termination flip chip standard; 5-sided wraparound termination available
- Tape and reel packaging available
- Internationally standardized sizes
- Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

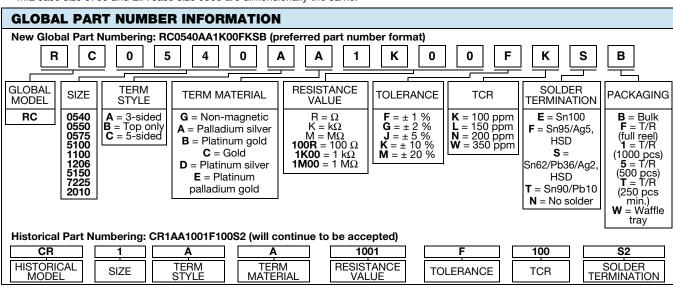
Note

* 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	CASE SIZE	POWER RATING P _{70 °C} W	MAXIMUM WORKING VOLTAGE ⁽¹⁾ V	RESISTANCE RANGE (2) Ω	TOLERANCE ± %	TEMPERATURE COEFFICIENT (3) (-55 °C to +155 °C) ± ppm/°C
RC0540	0504	0.100	40	10 to 500K	1, 2, 5, 10, 20	100
RC0550	0505	0.100	50	10 to 500K	1, 2, 5, 10, 20	100
RC0575	0705 ⁽⁴⁾	0.200	70	10 to 1M	1, 2, 5, 10, 20	100
RC5100	1005	0.250	100	10 to 1M	1, 2, 5, 10, 20	100
RC1100	1010	0.450	100	10 to 1M	1, 2, 5, 10, 20	100
RC1206	1206	0.300	100	10 to 1M	1, 2, 5, 10, 20	100
RC5150	1505	0.325	125	10 to 1M	1, 2, 5, 10, 20	100
RC7225	2208	0.525	200	10 to 1M	1, 2, 5, 10, 20	100
RC2010	2010	0.575	200	10 to 1M	1, 2, 5, 10, 20	100

Notes

- (1) Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.
- (2) Higher values available. Please consult factory.
- $^{(3)}$ ± 100 ppm/°C standard thru 1 M Ω , ± 200 ppm/°C offered from 1.1 M Ω to 10 M Ω .
- (4) MIL case size 0705 and EIA case size 0805 are dimensionally the same.



Note

Revision: 08-Feb-2021

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



www.vishay.com

Vishay Techno

MECHANICAL SPECIFICATIONS					
Resistive element	Ruthenium oxide				
Encapsulation	Glass				
Substrate	96 % alumina				
Termination	Gold, palladium silver, platinum gold, platinum silver, platinum palladium gold or solder coated non-magnetic terminations available.				
Solder finish	Base metallization without a solder finish standard. Hot solder dipped tin/silver or tin/lead/silver solder alloys available.				

ENVIRONMENTAL SPECIFICATIONS					
Operating temperature	-55 °C to +155 °C				
Moisture resistance	Less than 0.5 % change when tested per method 106 of MIL-STD-202				
Life	Less than 1 % change when tested per method 108D (+85 °C) of MIL-STD-202				
Short time overload	Less than 0.5 % ΔR				

DIMENSIONS in inches (millimeters)						
Termination Style A (3-sided wraparound)	Termination Style B (Top conductor only)	Termination Style C (5-sided wraparound)	MODEL	LENGTH (L) ⁽¹⁾ ± 0.006 (0.152)	WIDTH (W) ⁽¹⁾ ± 0.006 (0.152)	THICKNESS (T) (1) ± 0.005 (0.127)
w w	0.025 [0.635] Max.	0.025 [0.635] Max.	RC0540	0.050 (1.27)	0.040 (1.02)	0.020 (0.508)
			RC0550	0.050 (1.27)	0.050 (1.27)	0.020 (0.508)
, L ", L			RC0575	0.075 (1.90)	0.050 (1.27)	0.020 (0.508)
Ţ /// // // /			RC5100	0.100 (2.54)	0.050 (1.27)	0.020 (0.508)
0.025 [0.635]			RC1100	0.100 (2.54)	0.100 (2.54)	0.020 (0.508)
Max.			RC1206	0.125 (3.18)	0.062 (1.57)	0.025 (0.635)
			RC5150	0.150 (3.81)	0.050 (1.27)	0.020 (0.508)
			RC7225	0.225 (5.72)	0.075 (1.90)	0.020 (0.508)
			RC2010	0.200 (5.08)	0.100 (2.54)	0.025 (0.635)

Note

(1) All dimensions are before solder coating.

ТҮРЕ	TERMINATION MATERIAL	TERMINATION STYLE	TERMINATION STYLE/ MATERIAL CODE	SOLDER TERMINATION CODE	
Solderable	Non magnatia	3-sided (wraparound)	AG	E or T (standard);	
	Non-magnetic	Top only (flip chip)	BG	F or S (optional) (2)	
Epoxy bondable/ solderable	Platinum palladium gold	3-sided (wraparound)	AE	N (standard); F or S (optional) ⁽³⁾	
		Top only (flip chip)	BE		
		5-sided (wraparound)	CE	Toro (optional)	
Wire bondable/ Epoxy bondable		3-sided (wraparound)	AC	N	
	Gold	Top only (flip chip)	BC		
		5-sided (wraparound)	CC		
Epoxy bondable	Palladium silver ⁽⁴⁾	3-sided (wraparound)	AA		
		Top only (flip chip)	BA		
		5-sided (wraparound)	CA		
		3-sided (wraparound)	AB		
	Platinum gold	Top only (flip chip)	BB	N	
		5-sided (wraparound)	СВ	1	
		3-sided (wraparound)	AD		
	Platinum silver	Top only (flip chip)	BD		
		5-sided (wraparound)	CD		

Notes

- (2) Standard solder plating for the non-magnetic parts are solder terminations E or T. Hot solder dipped terminations F or S are also available.
- (3) Use solder termination N for applications requiring epoxy bondable mounting, and solder terminations F or S for applications requiring solderable mounting.
- (4) While not recommended, palladium silver terminations could be used for solderable applications when using a solder alloy containing silver. If the solder paste being used to solder the palladium silver terminated parts to the boards does not have a silver-based composition, then the silver in the terminations could begin to leach when it is exposed to liquidus non-silver-based solders, causing the potential for solderability and/or solder joint issues.



Legal Disclaimer Notice

Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.