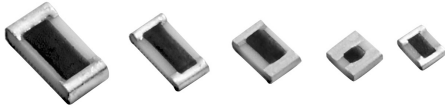


## Thick Film Chip Resistors, Alternate Terminations



MECHANICAL SPECIFICATIONS	
Resistive Element	Ruthenium oxide
Encapsulation	Glass
Substrate	96 % alumina
Termination	Gold, palladium silver, platinum gold, platinum silver, platinum palladium gold 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 + 150 °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 %  $\Delta R$

### FEATURES

- Suitable for solderable, epoxy bondable, or wire bondable applications
- Termination: Gold, palladium silver, platinum gold, platinum silver or platinum palladium gold available
- Multiple styles, termination materials and configurations, allow wide design flexibility
- Non-magnetic terminations
- Flow solderable
- Custom sizes available
- Burn-in data available
- Automatic placement capability
- Available with either wraparound terminations or as a single termination flip chip
- Tape and reel packaging available
- Internationally standardized sizes
- Compliant to RoHS directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



Available  
**RoHS\***  
 COMPLIANT  
 HALOGEN  
**FREE**

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	POWER RATING $P_{70^\circ\text{C}}$ W	RESISTANCE RANGE (1) $\Omega$	TOLERANCE $\pm \%$	TEMPERATURE COEFFICIENT (2) (- 55 °C to + 150 °C) $\pm \text{ppm}/^\circ\text{C}$	MAXIMUM WORKING VOLTAGE (3) V
RC0540	0.100	100 to 500k	1, 2, 5, 10, 20	100	40
RC0550	0.100	100 to 500k	1, 2, 5, 10, 20	100	50
RC0575	0.200	100 to 1M	1, 2, 5, 10, 20	100	70
RC5100	0.250	100 to 1M	1, 2, 5, 10, 20	100	100
RC1100	0.450	100 to 1M	1, 2, 5, 10, 20	100	100
RC1206	0.300	100 to 1M	1, 2, 5, 10, 20	100	100
RC5150	0.325	100 to 1M	1, 2, 5, 10, 20	100	125
RC7225	0.525	100 to 1M	1, 2, 5, 10, 20	100	200
RC2010	0.575	100 to 1M	1, 2, 5, 10, 20	100	200

#### Notes

(1) Higher values available. Please consult factory.

(2)  $\pm 100 \text{ ppm}/^\circ\text{C}$  standard thru 1 M $\Omega$ ,  $\pm 200 \text{ ppm}/^\circ\text{C}$  offered from 1.1 M $\Omega$  to 10 M $\Omega$ .

(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: RC0540AA1K00FKSB (preferred part number format)															
R	C	0	5	4	0	A	A	1	K	0	0	F	K	S	B
GLOBAL MODEL	SIZE	TERM STYLE	TERM MATERIAL	RESISTANCE VALUE	TOLERANCE	TCR	SOLDER TERMINATION	PACKAGING							
RC	0540 0550 0575 5100 1100 1206 5150 7225 2010	A = 3-sided B = Top only C = 5-sided	A = Palladium silver B = Platinum gold C = Gold D = Platinum silver E = Platinum palladium gold	R = $\Omega$ K = k $\Omega$ M = M $\Omega$ 100R = 100 $\Omega$ 1K00 = 1 k $\Omega$ 1M00 = 1 M $\Omega$	F = $\pm 1 \%$ G = $\pm 2 \%$ J = $\pm 5 \%$ K = $\pm 10 \%$ M = $\pm 20 \%$	K = 100 ppm L = 150 ppm N = 200 ppm W = 350 ppm	S = Sn62/Pb36/Ag2 F = Sn95/Ag5 N = No solder	B = Bulk T = Tape and reel W = Waffle							
Historical Part Numbering: CR1AA1001F100S2 (will continue to be accepted)															
CR	1	A	A	1001	F	100	S2								
HISTORICAL MODEL	SIZE	TERM STYLE	TERM MATERIAL	RESISTANCE VALUE	TOLERANCE	TCR	SOLDER TERMINATION								

\* Pb containing terminations are not RoHS compliant, exemptions may apply

DIMENSIONS in inches (millimeters)																																											
Termination Style A (3-sided wraparound)	Termination Style B (Top conductor only)	Termination Style C (5-sided wraparound)																																									
			<table border="1"> <thead> <tr> <th>MODEL</th> <th>LENGTH (L) <sup>(4)</sup> ± 0.006 (0.152)</th> <th>WIDTH (W) <sup>(4)</sup> ± 0.006 (0.152)</th> <th>THICKNESS (T) <sup>(4)</sup> ± 0.005 (0.127)</th> </tr> </thead> <tbody> <tr> <td>RC0540</td> <td>0.050 (1.27)</td> <td>0.040 (1.02)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC0550</td> <td>0.050 (1.27)</td> <td>0.050 (1.27)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC0575</td> <td>0.075 (1.90)</td> <td>0.050 (1.27)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC5100</td> <td>0.100 (2.54)</td> <td>0.050 (1.27)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC1100</td> <td>0.100 (2.54)</td> <td>0.100 (2.54)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC1206</td> <td>0.125 (3.18)</td> <td>0.062 (1.57)</td> <td>0.025 (0.635)</td> </tr> <tr> <td>RC5150</td> <td>0.150 (3.81)</td> <td>0.050 (1.27)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC7225</td> <td>0.225 (5.72)</td> <td>0.075 (1.90)</td> <td>0.020 (0.508)</td> </tr> <tr> <td>RC2010</td> <td>0.200 (5.08)</td> <td>0.100 (2.54)</td> <td>0.025 (0.635)</td> </tr> </tbody> </table>	MODEL	LENGTH (L) <sup>(4)</sup> ± 0.006 (0.152)	WIDTH (W) <sup>(4)</sup> ± 0.006 (0.152)	THICKNESS (T) <sup>(4)</sup> ± 0.005 (0.127)	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)	RC0575	0.075 (1.90)	0.050 (1.27)	0.020 (0.508)	RC5100	0.100 (2.54)	0.050 (1.27)	0.020 (0.508)	RC1100	0.100 (2.54)	0.100 (2.54)	0.020 (0.508)	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)
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**Note**

<sup>(4)</sup> All dimensions are before solder coating.

TYPE	TERMINATION MATERIAL	TERMINATION STYLE	TERMINATION STYLE/ MATERIAL CODE	SOLDER TERMINATION CODE
Wire bondable/ Solderable	Platinum palladium gold	3-sided (wraparound)	AE	N, F or S <sup>(1)</sup>
		Top only (flip chip)	BE	
		5-sided (wraparound)	CE	
Wire bondable/ Epoxy bondable	Gold	3-sided (wraparound)	AC	N
		Top only (flip chip)	BC	
		5-sided (wraparound)	CC	
Epoxy bondable	Palladium silver <sup>(2)</sup>	3-sided (wraparound)	AA	N
		Top only (flip chip)	BA	
		5-sided (wraparound)	CA	
	Platinum gold	3-sided (wraparound)	AB	
		Top only (flip chip)	BB	
		5-sided (wraparound)	CB	
	Platinum silver	3-sided (wraparound)	AD	
		Top only (flip chip)	BD	
		5-sided (wraparound)	CD	

**Notes**

<sup>(1)</sup> Use solder termination N for applications requiring wire bondable mounting, and solder terminations F or S for applications requiring solderable mounting

<sup>(2)</sup> While not recommended, palladium silver terminations could be used for solderable applications when using a solder alloy containing silver



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