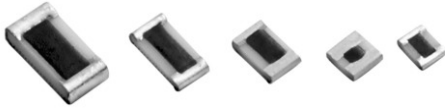


# Thick Film Chip Resistors, Alternate Terminations



STANDARD ELECTRICAL SPECIFICATIONS		
MODEL	RESISTANCE ( $\Omega$ )	POWER RATING <sup>(1)</sup> (W)
RC0540	100 to 500K	0.100
RC0550	100 to 500K	0.100
RC0575	100 to 1M	0.200
RC5100	100 to 1M	0.250
RC1100	100 to 1M	0.450
RC1206	100 to 1M	0.300
RC5150	100 to 1M	0.325
RC7225	100 to 1M	0.525
RC2010	100 to 1M	0.575

**Note**

<sup>(1)</sup> Higher values available. Please consult factory.

**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

**MECHANICAL SPECIFICATIONS**

**Construction:** 96 % alumina substrate with proprietary cermet resistance element and specified termination material

**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
- Lead (Pb)-free version is RoHS compliant



**RoHS\***  
COMPLIANT

**ELECTRICAL SPECIFICATIONS**

**Resistance Range:** 100  $\Omega$  to 1 M $\Omega$

(Higher values available)

**Resistance Tolerance:**  $\pm 1\%$ ,  $\pm 2\%$ ,  $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$

**Temperature Coefficient:** (- 55 °C to + 150 °C)

$\pm 100$  ppm/°C: Standard thru 1 M $\Omega$

$\pm 200$  ppm/°C: 1.1 M $\Omega$  thru 10 M $\Omega$

**Power Rating:** 0.100 W thru 0.575 W

**Short Time Overload:** Less than 0.5 %  $\Delta R$

DIMENSIONS in inches [millimeters]				MODEL	LENGTH (L) <sup>(2)</sup> $\pm 0.006$ [0.152]	WIDTH (W) <sup>(2)</sup> $\pm 0.006$ [0.152]	THICKNESS (T) <sup>(2)</sup> $\pm 0.002$ [0.051]
<b>Termination Style A</b> (3-sided wraparound) 	<b>Termination Style B</b> (Top conductor only) 	<b>Termination Style C</b> (5-sided wraparound) 	RC0540	0.050 [1.27]	0.040 [1.02]	0.012 [0.305]	
			RC0550	0.050 [1.27]	0.050 [1.27]	0.010 [0.254]	
			RC0575	0.075 [1.90]	0.050 [1.27]	0.015 [0.381]	
			RC5100	0.100 [2.54]	0.050 [1.27]	0.015 [0.381]	
			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]	0.015 [0.381]	
			RC7225	0.225 [5.72]	0.075 [1.90]	0.015 [0.381]	
			RC2010	0.200 [5.08]	0.100 [2.54]	0.020 [0.508]	

**Note**

<sup>(2)</sup> All dimensions are before solder coating.

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 = Decimal K = Thousand M = Million 100R = 100 $\Omega$ 1K00 = 1 k $\Omega$ 1M00 = 1 M $\Omega$		F = $\pm 1.0\%$ G = $\pm 2.0\%$ J = $\pm 5.0\%$ K = $\pm 10.0\%$ M = $\pm 20.0\%$	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

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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