

# RMCP Series

General Purpose High Power Thick Film Chip Resistors

Stackpole Electronics, Inc.

Resistive Product Solutions

**Features:**

- High Power Rating
- Nickel Barrier terminations standard
- Power derating from 100% at 70°C to zero at +155°C
- RoHS compliant

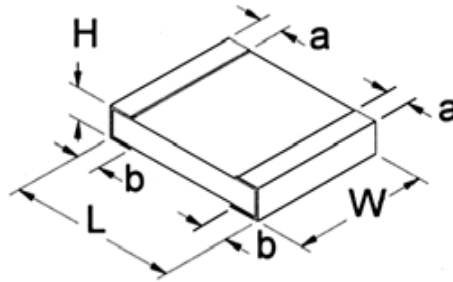


Electrical Specifications								
Type / Code	Package Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage ①	Maximum Overload Voltage	Maximum Current	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance	
							1%	5%
RMCP 0402	0402	0.100W	50V	100V	1 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 0603	0603	0.125W	50V	100V	1 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 0805	0805	0.250W	150V	300V	2 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 1206	1206	0.333W	200V	400V	2 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 1210	1210	0.500W	200V	400V	3 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 2010	2010	1.000W	200V	400V	3 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M
RMCP 2512	2512	2.000W	200V	400V	3 Amp	± 200 ppm/°C ± 100 ppm/°c ± 200 ppm/°C	1 - 9.76 10 - 1M 1.02M - 10M	1 - 9.76 10 - 1M 1.02M - 10M

① Lesser of √PR or maximum working voltage.

## How to Order

SEI Type		Code			Nominal Resistance	Tolerance		Packaging			
RMCP		0603			4.7K	5%		R			
Type	Description	Code	Wattage	Size	Tolerance		Values	SEI Types	Pkg Qty	Description	Code
RMCP	High Power	0402	0.100W	0402	1%	E96,E24		0402	10,000	7" reel - Paper	R
		0603	0.125W	0603	5%	E24		0603, 0805, 1206, 1210	10,000	10" reel - Paper	G
		0805	0.250W	0805					5,000	7" reel - Paper	R
		1206	0.330W	1206					4,000	7" reel - Paper	R
		1210	0.500W	1210							
		2010	1.000W	2010							
		2512	2.000W	2512							



Mechanical Specifications						
Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RMCP 0402	0.039 ± 0.002	0.020 ± 0.002	0.014 ± 0.002	0.008 ± 0.004	0.010 +0.002/-0.004	inches
	1.00 ± 0.05	0.50 ± 0.05	0.35 ± 0.05	0.20 ± 0.10	0.25 + 0.05/-0.10	mm
RMCP 0603	0.063 ± 0.004	0.031 ± 0.004	0.018 ± 0.004	0.012 ± 0.008	0.012 ± 0.008	inches
	1.60 ± 0.10	0.80 ± 0.10	0.45 ± 0.10	0.30 ± 0.20	0.30 ± 0.20	mm
RMCP 0805	0.079 ± 0.008	0.049 ± 0.004	0.020 ± 0.006	0.016 ± 0.008	0.016 ± 0.008	inches
	2.00 ± 0.20	1.25 ± 0.10	0.50 ± 0.15	0.40 ± 0.20	0.40 ± 0.20	mm
RMCP 1206	0.126 ± 0.008	0.063 ± 0.006	0.021 ± 0.006	0.020 ± 0.010	0.020 ± 0.010	inches
	3.20 ± 0.20	1.60 ± 0.15	0.55 ± 0.15	0.50 ± 0.25	0.50 ± 0.25	mm
RMCP 1210	0.126 ± 0.008	0.098 ± 0.008	0.021 ± 0.006	0.020 ± 0.010	0.020 ± 0.010	inches
	3.20 ± 0.20	2.50 ± 0.20	0.55 ± 0.15	0.50 ± 0.25	0.50 ± 0.25	mm
RMCP 2010	0.197 ± 0.008	0.098 ± 0.008	0.021 ± 0.006	0.024 ± 0.010	0.024 ± 0.010	inches
	5.00 ± 0.20	2.5 ± 0.20	0.55 ± 0.15	0.60 ± 0.25	0.60 ± 0.25	mm
RMCP 2512	0.248 ± 0.008	0.126 ± 0.008	0.021 ± 0.006	0.024 ± 0.010	0.024 ± 0.010	inches
	6.30 ± 0.20	3.20 ± 0.20	0.55 ± 0.15	0.60 ± 0.25	0.60 ± 0.25	mm

Performance Characteristics		
Test	Test Conditions (JIS C 5202)	Test Results
Short Time Overload	2.5x rated voltage for 5 seconds	± (2% + 0.1Ω)
Dielectric Withstanding Voltage	100 VAC, 1 minute	± (1% + 0.05Ω)
Resistance to Soldering Heat	260°C ±5°C, for 10 sec. ±0.5 sec. (Solder Bath)	± (1% + 0.05Ω)
Solderability	235°C ±5°C, for 2 sec. ±0.5 sec. (Colophonium flux)	95% coverage, minimum
Temperature Cycle	-65°C: 30 min. 25°C: 2 to 3 min. 155°C: 30 min. 25°C: 2 to 3 min. (5 Cycles)	±(1% + 0.05Ω) Jumper (<0.05Ω)
Endurance (Damp load)	40°C ± 2°C, 90% RH, Rated Load 90 min. On, 30 min. Off for 1,000 hrs. -0hrs./+48hrs.	±(3% + 0.1Ω) Jumper (<0.05Ω)
Endurance (Rated load)	70°C ± 2°C, Rated Load 90 min. On, 30 min. Off for 1,000 hrs. -0hrs./+48hrs.	±(3% + 0.1Ω) Jumper (<0.05Ω)
Voltage Coefficient	1/10 rated voltage for 3 sec. max. then rated voltage for 3 sec. max.	±100 (ppm/V)
Robustness of Termination	Bend of 3mm for 5 ± 1 sec.	± (1% + 0.05 Ohm)

Operating Temperature Range: -65°C to +125°C (0402 size)  
-65°C to +155°C (all others)