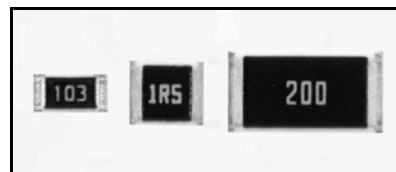


RMC Series — General Purpose Thick Film Chip Resistors



Features

- Nickel barrier terminations standard
- Zero ohm available (max resistance 0.05Ω)
- Power derating from 100% at 70°C to zero at +155°C
- RoHS compliant / lead-free available (RMCF)



Electrical Specifications

Type / Code	Package Size	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Maximum Overload Voltage	Max. Current	Resistance Temperature Coefficient	Ohmic Range and Tolerance	
							1%	5%
RMC 1/20	0201	0.050W	25V	50V	1 Amp	±600 ppm/°C ±300 ppm/°C ±200 ppm/°C	1.0Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1MΩ	1.0Ω – 9.1Ω 10Ω – 91Ω 100Ω – 10MΩ
RMC 1/16S	0402	0.063W	50V	100V	1 Amp	±200 ppm/°C ±100 ppm/°C	– 1.0Ω – 10MΩ	1.0Ω – 10MΩ –
RMC 1/16	0603	0.100W	50V	100V	1 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 1.0Ω – 9.76Ω 10Ω – 1MΩ 1.02M – 10MΩ	1.0Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 22MΩ
RMC 1/10	0805	0.125W	150V	300V	2 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 0.1Ω – 0.976Ω 1.0Ω – 10MΩ –	0.1Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 22MΩ
RMC 1/8	1206	0.250W	200V	400V	2 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 0.1Ω – 0.976Ω 1.0Ω – 10MΩ –	0.1Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 24MΩ
RMC 1/4	1210	0.330W**	200V	400V	3 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 0.1Ω – 0.976Ω 1.0Ω – 10MΩ –	0.15Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 22MΩ
RMC 1/2	2010	0.750W	200V	400V	3 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 0.1Ω – 0.976Ω 1.0Ω – 10MΩ –	0.1Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 22MΩ
RMC 1	2512	1.000W	200V	400V	3 Amp	±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	– 0.1Ω – 0.976Ω 1.0Ω – 1MΩ –	0.1Ω – 9.1Ω 10Ω – 10MΩ – 11MΩ – 22MΩ

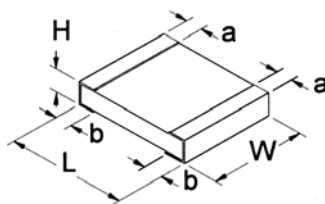
* Lesser of $\sqrt{PR}$ or maximum working voltage.

**Power rating is 0.500W for ohmic values below 1KΩ

How to Order

RMC		1/16			4.7K		5%		R			
SEI Type		Code			Nominal Resistance		Tolerance		Packaging			
SEI Type	Description	Code	Wattage	Size	Tolerance	Values	SEI Types	Pkg Qty	Description	Code		
RMC	Standard	1/20	0.050W	0201	1%	E96,E24	1/20	15,000	7" reel - Paper	R		
RMCF	RoHS	1/16S	0.063W	0402	5%	E24	1/16S	10,000	10" reel - Paper	G		
		1/16	0.100W	0603			1/16, 1/10, 1/8	10,000	10" reel - Paper	G		
		1/10	0.125W	0805				5,000	7" reel - Paper	R		
		1/8	0.250W	1206				1,000	Bulk	A		
		1/4	0.330W	1210			1/4, 1/2, 1	4,000	7" - Embossed	R		
		1/2	0.750W	2010								
		1	1.000W	2512								

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Mechanical Specifications

Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RMC 1/20	0.024 ± 0.001 0.60 ± 0.03	0.011 ± 0.001 0.30 ± 0.03	0.009 ± 0.001 0.23 ± 0.03	0.004 ± 0.002 0.10 ± 0.05	0.006 ± 0.002 0.15 ± 0.05	inches mm
RMC 1/16S	0.039 ± 0.002 1.00 ± 0.05	0.020 ± 0.002 0.50 ± 0.05	0.014 ± 0.002 0.35 ± 0.05	0.008 ± 0.004 0.20 ± 0.10	0.010 +0.002/ -0.004 0.25 +0.05/ -0.10	inches mm
RMC 1/16	0.063 ± 0.004 1.60 ± 0.10	0.031 ± 0.004 0.80 ± 0.10	0.018 ± 0.004 0.45 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.008 0.30 ± 0.20	inches mm
RMC 1/10	0.079 ± 0.008 2.00 ± 0.20	0.049 ± 0.004 1.25 ± 0.10	0.020 ± 0.006 0.50 ± 0.15	0.016 ± 0.008 0.40 ± 0.20	0.016 ± 0.008 0.40 ± 0.20	inches mm
RMC 1/8	0.126 ± 0.008 3.20 ± 0.20	0.063 ± 0.006 1.60 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.020 ± 0.010 0.50 ± 0.25	0.020 ± 0.010 0.50 ± 0.25	inches mm
RMC 1/4	0.126 ± 0.008 3.20 ± 0.20	0.098 ± 0.008 2.50 ± 0.20	0.021 ± 0.006 0.55 ± 0.15	0.020 ± 0.010 0.50 ± 0.25	0.020 ± 0.010 0.50 ± 0.25	inches mm
RMC 1/2	0.197 ± 0.008 5.00 ± 0.20	0.098 ± 0.008 2.50 ± 0.20	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.010 0.60 ± 0.25	0.024 ± 0.010 0.60 ± 0.25	inches mm
RMC 1	0.248 ± 0.008 6.30 ± 0.20	0.126 ± 0.008 3.20 ± 0.20	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.010 0.60 ± 0.25	0.024 ± 0.010 0.60 ± 0.25	inches mm

*Lead free (RMCF) dimensions same as standard parts

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	100VAC, 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. -0 hrs. / +48 hrs.	±(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. -0 hrs. / +48 hrs.	±(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% + 0.05 Ohm)

Operating Temperature Range : -65°C to +125°C (0201 size)

-65°C to +155°C (all others)