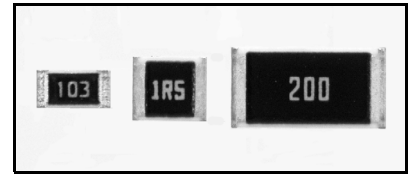


RMC Series — General Purpose Thick Film Chip Resistors

Features

- Nickel barrier terminations standard
- Operating temp range from -65°C to +150°C
- Power derating from 100% at 70°C to zero at +150°C
- Zero ohm available (max resistance 0.05Ω)
- RoHS compliant/ lead-free available (RMCF)



Electrical Specifications

Type	Package Type	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	0.05W	25	50	1 Amp	±300 ppm/°C ±200 ppm/°C	10Ω – 97.6Ω 100Ω – 1M	10Ω – 91Ω 100Ω – 1M
RMC 1/16S	0402	0.063W	50	100	1 Amp	±350 ppm/°C ±200 ppm/°C	1Ω – 9.76Ω 10Ω – 10M	1Ω – 9.1Ω 10Ω – 10M
RMC 1/16	0603	0.1W	50	100	1 Amp	500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	1Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1M 1.02M – 4.64M	1Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 22M
RMC 1/10	0805	0.125W	150	300	2 Amp	±250 ppm/°C 500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	0.1Ω – 0.294Ω 0.3Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1M 1.02M – 10M	0.1Ω – 9.1Ω 1Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 22M
RMC 1/8	1206	0.25W	200	400	2 Amp	500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	0.1Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1M 1.02M – 10M	0.1Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 24M
RMC 1/4	1210	0.33W	200	400	3 Amp	500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	0.1Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1MΩ 1.02M – 10M	0.15Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 22M
RMC 1/2	2010	0.75W	200	400	3 Amp	500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	0.1Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1M 1.02M – 10M	0.1Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 22M
RMC 1	2512	1W	200	400	3 Amp	500 ppm/°C, ±350 ppm/°C ±350 ppm/°C ±200 ppm/°C ±100 ppm/°C ±350 ppm/°C	0.1Ω – 2.37Ω 2.43Ω – 9.76Ω 10Ω – 97.6Ω 100Ω – 1M –	0.1Ω – 2.2Ω 2.4Ω – 9.1Ω 10Ω – 1M – 1.1M – 22M

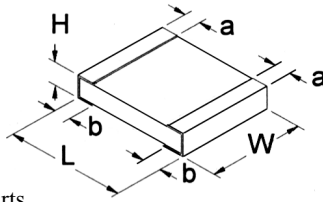
* Lesser of √PR or maximum working voltage.

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	Code	Description	Pkg Qty		
RMC	Standard	1/20	0.05W	0201	1%	E96,E24	R	7" reel - Paper	5,000		
RMCF	RoHS	1/16S	0.063W	0402	5%	E24	G	10" reel - Paper	10,000		
		1/16	0.1W	0603			A	Bulk	1,000		
		1/10	0.125W	0805							
		1/8	0.25W	1206							
		1/4	0.33W	1210							
		1/2	0.75W	2010							
		1	1W	2512							

See page 77 for exceptions

RMC Series — General Purpose Thick Film Chip Resistors



Lead free (RMCF) dimensions same as standard parts.

Mechanical Specifications

Type	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 ± 0.004 2.00 ± 0.10	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 ± 0.006 3.20 ± 0.15	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 ± 0.006 3.20 ± 0.15	0.098 ± 0.006 2.50 ± 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 1/2	0.197 ± 0.006 5.00 ± 0.15	0.098 ± 0.006 2.50 ± 0.15	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 ± 0.006 6.30 ± 0.15	0.126 ± 0.006 3.20 ± 0.15	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

Performance Characteristics

Test	Test Conditions (JIS C 5202)	Test Results
Short Time Overload	2.5x rated voltage for 5 seconds	±(2% +0.1Ω)
Insulation Resistance	100VDC ± 15 volts, 1 minute	>1,000MΩ
Dielectric Withstanding Voltage	100VAC, 1 minute	±(1% +0.05Ω)
Intermittent Overload	3x rated voltage, 1 sec. On, 25 sec. Off, 10,000 cycles	±(2% +0.1Ω)
Vibration	10 to 55 Hz, 3 directions, 2 hours each	±(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
Low Temperature	55°C ± 3°C, (1,000 hrs. - 0 hrs. + 48 hrs.)	±(2% +0.1Ω) Jumper (<0.05Ω)
Resistance to Dry Heat	125°C ± 3°C, (1,000 hrs. - 0 hrs. + 48 hrs.)	±(3% +0.1Ω) Jumper (<0.05Ω)
Resistance to Damp Heat	60°C, 90% to 95% RH, No Load (1,000 hrs. - 0 hrs. + 48 hrs.)	±(1% +0.05Ω) Jumper (<0.05Ω)
Temperature Cycle	-65°C: 30 min. 25°C: 2 to 3 min. 150°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% to RH, Rated Load 90 min. On, 30 min. Off, (1,000 hrs. - 0 hrs. + 48 hrs.)	±(3% +0.1Ω) Jumper (<0.05Ω)
Endurance (Rated load)	70°C ± 2°C, 90% to RH, Rated Load 90 min. On, 30 min. Off, (1,000 hrs. - 0 hrs. + 48 hrs.)	±(3% +0.1Ω) Jumper (<0.05Ω)