

RMCF Series

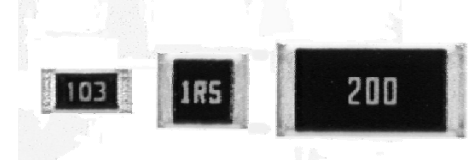
General Purpose Thick Film Chip Resistor

Stackpole Electronics, Inc.

Resistive Product Solutions

Features:

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

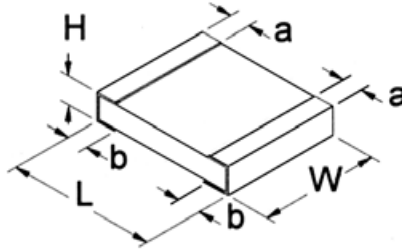


Electrical Specifications								
Type / Code	Package Type	Power Rating (Watts) @ 70°C	Maximum Working Voltage (1)	Maximum Overload Voltage	Maximum Current	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance (2)	
							1%	5%
RMCF 1/20	0201	0.05W	25V	50V	1 Amp	± 400 ppm/°C ± 200 ppm/°C	1 ~ 9.76 10 ~ 10M	1 ~ 9.1 10 ~ 10M
RMCF 1/16S	0402	0.063W	50V	100V	1 Amp	± 300 ppm/°C ± 200 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	0.2 ~ 0.590 0.604 ~ 9.76 10.0 ~ 1M 1.02M ~ 10M	0.2 ~ 0.56 0.62 ~ 9.1 10.0 ~ 1M 1.1M ~ 20M
RMCF 1/16	0603	0.1W	50V	100V	1 Amp	± 600 ppm/°C ± 200 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	0.1 ~ 0.976 1 ~ 9.76 10 ~ 1M 1.02M ~ 10M	0.1 ~ 0.91 1 ~ 20M - -
RMCF 1/10	0805	0.125W	150V	300V	2 Amp	± 200 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	0.1 ~ 9.76 10 ~ 1M 1.02M ~ 10M	0.1 ~ 20M - -
RMCF 1/8	1206	0.25W	200V	400V	2 Amp	± 200 ppm/°C ± 100 ppm/°C ± 200 ppm/°C	0.1 ~ 9.76 10 ~ 1M 1.02M ~ 10M	0.1 ~ 20M - -
RMCF 1/4	1210	0.33W(3)	200V	400V	3 Amp	± 200 ppm/°C ± 400 ppm/°C ± 200 ppm/°C ± 100 ppm/°C	0.1 ~ 0.976 1 ~ 9.76 - 10 ~ 10M	0.1 ~ 0.91 1 ~ 9.1 10 ~ 20M -
RMCF 1/2	2010	0.75W(3)	200V	400V	3 Amp	± 200 ppm/°C ± 400 ppm/°C ± 200 ppm/°C ± 100 ppm/°C	0.1 ~ 0.976 1 ~ 9.76 - 10 ~ 10M	0.1 ~ 0.91 1 ~ 9.1 10 ~ 10M -
RMCF 1	2512	1W	200V	400V	3 Amp	± 200 ppm/°C ± 400 ppm/°C ± 200 ppm/°C ± 100 ppm/°C	0.1 ~ 0.976 1 ~ 9.76 - 10 ~ 10M	0.1 ~ 0.91 1 ~ 9.1 10 ~ 10M -

(1) Lesser of √PR or maximum working voltage.

(2) Contact factory for extended ohmic values.

(3) Power rating is 0.500W for ohmic values below 1Ω



Mechanical Specifications						
Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Units
RMCF 1/20	0.024 ± 0.001 0.60 ± 0.03	0.011 ± 0.001 0.30 ± 0.03	0.010 ± 0.002 0.25 ± 0.05	0.006 ± 0.002 0.15 ± 0.05	0.006 ± 0.002 0.15 ± 0.05	inches mm
RMCF 1/16S	0.039 ± 0.004 1.00 ± 0.10	0.020 ± 0.002 0.50 ± 0.05	0.011 ± 0.004 0.30 ± 0.10	0.008 ± 0.004 0.20 ± 0.10	0.010 ± 0.004 0.25 ± 0.10	inches mm
RMCF 1/16	0.061 ± 0.006 1.55 ± 0.15	0.031 ± 0.006 / - 0.004 0.80 ± 0.15 / - 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
RMCF 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	0.014 ± 0.010 0.35 ± 0.25	0.014 ± 0.010 0.35 ± 0.25	inches mm
RMCF 1/8	0.126 ± 0.010 3.20 ± 0.25	0.063 ± 0.006 1.60 ± 0.15	0.021 ± 0.006 0.55 ± 0.15	0.020 ± 0.012 0.50 ± 0.30	0.020 ± 0.012 0.50 ± 0.30	inches mm
RMCF 1/4	0.126 ± 0.010 3.20 ± 0.25	0.098 ± 0.008 2.50 ± 0.20	0.021 ± 0.006 0.55 ± 0.15	0.020 ± 0.012 0.50 ± 0.30	0.020 ± 0.012 0.50 ± 0.30	inches mm
RMCF 1/2	0.197 ± 0.008 5.00 ± 0.20	0.098 ± 0.008 2.5 ± 0.20	0.021 ± 0.006 0.55 ± 0.15	0.024 ± 0.012 0.60 ± 0.30	0.024 ± 0.014 0.60 ± 0.35	inches mm
RMCF 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 ± 0.012 0.60 ± 0.30	0.024 ± 0.014 0.60 ± 0.35	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)
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%
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: -55°C to +125°C (0201 size)
-55°C to +155°C (all others)

How to Order

SEI Type		Code			Nominal Resistance	Tolerance		Packaging			
RMC		1/16			4.7K	5%		R			
Type	Description	Code	Wattage	Size		Tolerance	Values	SEI Types	Pkg Qty	Description	Code
RMC	Standard	1/20	0.05W	0201		1%	E96,E24	1/20	15,000	7" reel - paper tape	R
RMCF	RoHS	1/16S	0.063W	0402		5%	E24	1/16S	10,000	10" reel - paper tape	G
		1/16	0.1W	0603				1/16, 1/10, 1/8	10,000	7" reel - paper tape	R
		1/10	0.125W	0805					5,000	bulk	A
		1/8	0.25W	1206					1,000		
		1/4	0.33W	1210				1/4, 1/2, 1	4,000	7" reel - plastic tape	R
		1/2	0.75W	2010							
		1	1W	2512							

New part number format starting January 3rd, 2011:

How to Order

1	2	3	4	5	6	7	8	9	10	11	12	13	14
R	M	C	F	0	6	0	3	J	T	4	K	7	0
Product Series		Size	Power	Tolerance		Packaging				Resistance Value			
RMCF	Thick Film Chip Resistors	0201	0.05W	Code	Tol	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder.			
		0402	0.063W	F	1%	T	7" reel - paper tape	0201	15,000				
		0603	0.1W	J	5%		7" reel - plastic tape	0402	10,000	0.1 ohm = R100 4.70 ohm = 4R70 10.0 Kohm = 10K0 1 Mohm = 1M00 Zero ohm jumper = 0R00			
		0805	0.125W	Z	jumper	G	10" reel - paper tape	0603, 0805, 1206	5,000				
		1206	0.25W			B	bulk	1210, 2010, 2512	4,000				
		1210	0.33W					0603, 0805, 1206	10,000				
		2010	0.75W					0603, 0805, 1206	1,000				
		2512	1W										