

- Features:
- Inner terminations engineered to deter sulfur contamination
  - Non-standard resistance values available
  - Operating temp range from -55°C to +155°C
  - Zero ohm available (max resistance 0.05Ω)
  - RoHS compliant and halogen free

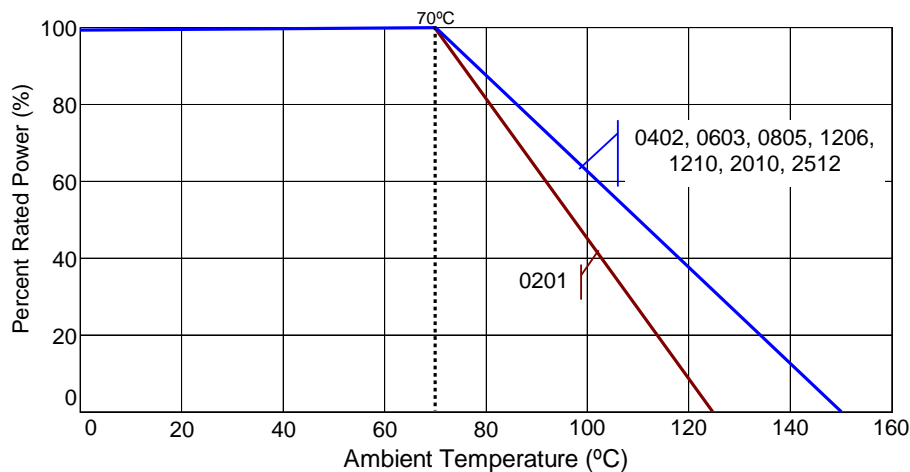


Electrical Specifications								
Type / Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage <sup>(1)</sup>	Maximum Overload Voltage <sup>(2)</sup>	Maximum Current Jumper (Amp)	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance		
						0.5%	1%	5%
RMCS0201	0.05W	25V	50V	1 amp	± 200 ppm/°C	-	1 - 10M	
RMCS0402	0.063W	50V	100V	1 amp	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS0603	0.1W	50V	100V	1 amp	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS0805	0.125W	150V	300V	2 amps	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS1206	0.25W	200V	400V	2 amps	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS1210	0.33W	200V	400V	2.5 amps	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS2010	0.75W	200V	400V	3.5 amps	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		
RMCS2512	1W	250V	500V	4 amps	± 200 ppm/°C	1 - 9.76		
					± 100 ppm/°C	10 - 1M		
					± 200 ppm/°C	1.02M - 10M		

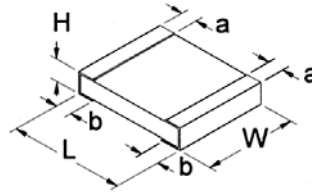
(1) Lesser of  $\sqrt{P \cdot R}$  or maximum working voltage

(2)  $2.5 \cdot \sqrt{P \cdot R}$  or Max. Overload Voltage listed above, whichever is lower.

**Power Derating Curve:**

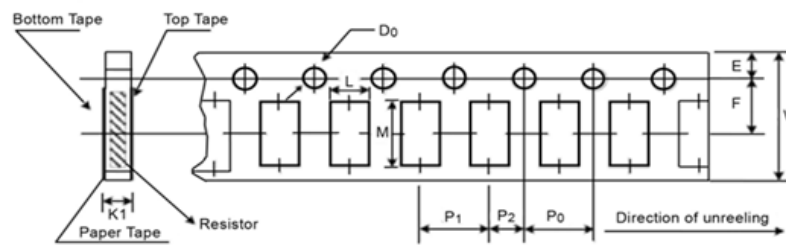


**Mechanical Specifications**



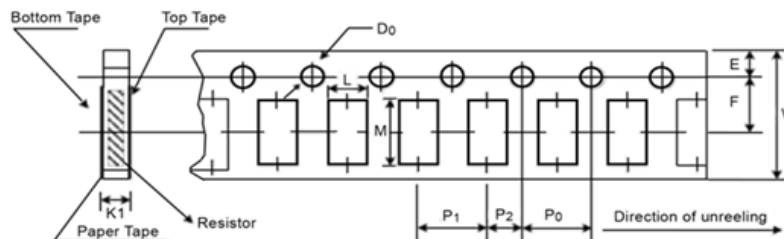
Type / Code	L Body Length	W Body Width	H Body Height	a Top Termination	b Bottom Termination	Unit
RMCS0201	0.024 ± 0.001 0.60 ± 0.03	0.012 ± 0.001 0.30 ± 0.03	0.009 ± 0.001 0.23 ± 0.03	0.006 ± 0.002 0.15 ± 0.05	0.006 ± 0.002 0.15 ± 0.05	inches mm
RMCS0402	0.039 ± 0.002 1.00 ± 0.05	0.020 ± 0.002 0.50 ± 0.05	0.014 ± 0.002 0.35 ± 0.05	0.008 ± 0.004 0.20 ± 0.10	0.008 ± 0.004 0.20 ± 0.10	inches mm
RMCS0603	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
RMCS0805	0.079 ± 0.004 2.00 ± 0.10	0.049 ± 0.004 1.25 ± 0.10	0.020 ± 0.004 0.50 ± 0.10	0.014 ± 0.008 0.35 ± 0.20	0.016 ± 0.008 0.40 ± 0.20	inches mm
RMCS1206	0.122 ± 0.004 3.10 ± 0.10	0.061 ± 0.004 1.55 ± 0.10	0.022 ± 0.004 0.55 ± 0.10	0.020 ± 0.010 0.50 ± 0.25	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMCS1210	0.122 ± 0.004 3.10 ± 0.10	0.102 ± 0.006 2.60 ± 0.15	0.022 ± 0.004 0.55 ± 0.10	0.020 ± 0.010 0.50 ± 0.25	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMCS2010	0.197 ± 0.004 5.00 ± 0.10	0.098 ± 0.006 2.50 ± 0.15	0.022 ± 0.004 0.55 ± 0.10	0.024 ± 0.010 0.60 ± 0.25	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMCS2512	0.250 ± 0.004 6.35 ± 0.10	0.122 ± 0.006 3.10 ± 0.15	0.022 ± 0.004 0.55 ± 0.10	0.024 ± 0.010 0.60 ± 0.25	0.020 ± 0.008 0.50 ± 0.20	inches mm

**Packaging Specifications – Paper Tape**



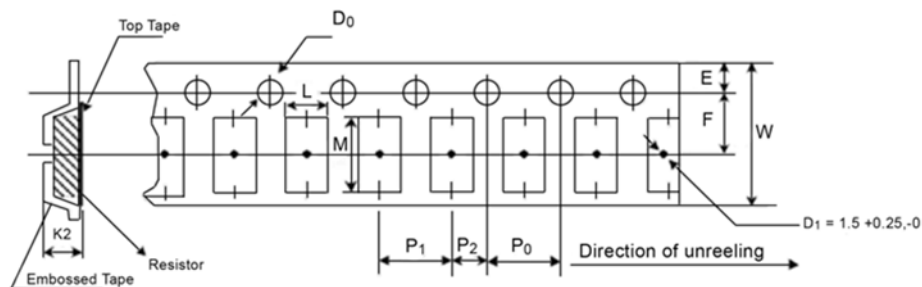
Type	L	M	W	E	F	Unit
RMCS0201	0.015 ± 0.002 0.38 ± 0.05	0.027 ± 0.002 0.68 ± 0.05	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
RMCS0402	0.026 ± 0.004 0.65 ± 0.10	0.045 ± 0.004 1.15 ± 0.10	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
RMCS0603	0.043 ± 0.004 1.10 ± 0.10	0.075 ± 0.004 1.90 ± 0.10	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
RMCS0805	0.063 ± 0.004 1.60 ± 0.10	0.094 ± 0.008 2.40 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
RMCS1206	0.075 ± 0.004 1.90 ± 0.10	0.138 ± 0.008 3.50 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
RMCS1210	0.110 ± 0.004 2.80 ± 0.10	0.138 ± 0.008 3.50 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm

**Packaging Specifications – Paper Tape (cont.)**



Type	$P_0$	$P_1$	$P_2$	$\varnothing D_0$	$K_1/K_2$	Unit
RMCS0201	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.017 ± 0.008 0.42 ± 0.20	inches mm
RMCS0402	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.018 ± 0.004 0.45 ± 0.10	inches mm
RMCS0603	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.028 ± 0.004 0.70 ± 0.10	inches mm
RMCS0805	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.004 0.85 ± 0.10	inches mm
RMCS1206	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.004 0.85 ± 0.10	inches mm
RMCS1210	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.004 0.85 ± 0.10	inches mm

**Packaging Specifications – Embossed Plastic Tape**

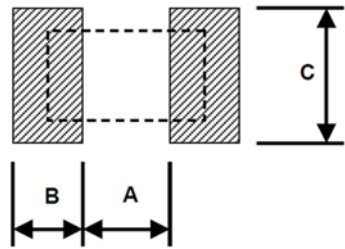


Type	L	M	W	E	F	Unit
RMCS2010	0.110 ± 0.008 2.80 ± 0.20	0.217 ± 0.008 5.50 ± 0.20	0.472 ± 0.012 12.00 ± 0.30	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.002 5.50 ± 0.05	inches mm
RMCS2512	0.138 ± 0.008 3.50 ± 0.20	0.264 ± 0.008 6.70 ± 0.20	0.472 ± 0.012 12.00 ± 0.30	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.002 5.50 ± 0.05	inches mm

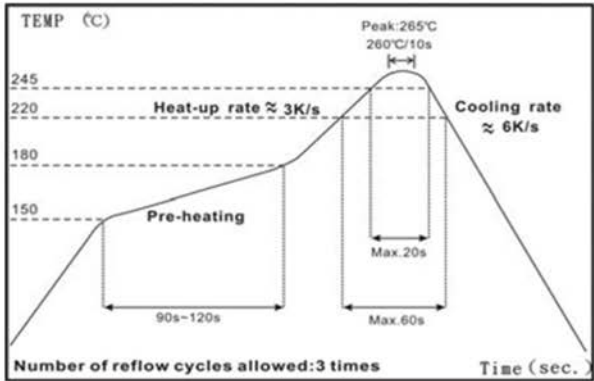
Type	$P_0$	$P_1$	$P_2$	$\varnothing D_0$	$K_1/K_2$	Unit
RMCS2010	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.047 - 0 1.20 - 0	inches mm
RMCS2512	0.157 ± 0.004 4.00 ± 0.10	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.059 ± 0.004 1.50 ± 0.10	0.047 - 0 1.20 - 0	inches mm

**Recommended Pad Layout**

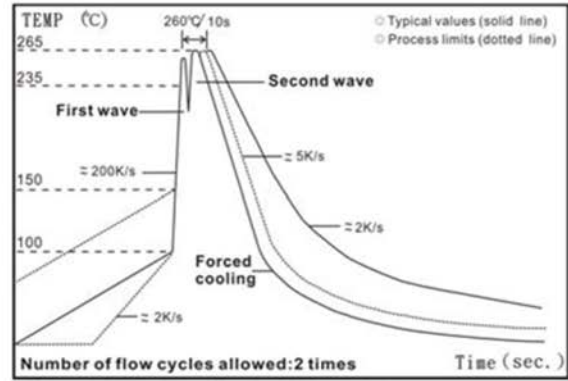


Type / Code	A	B	C	Unit
RMCS0201	0.012 0.30	0.010 0.25	0.012 0.30	inches mm
RMCS0402	0.020 0.50	0.018 0.45	0.024 0.60	inches mm
RMCS0603	0.035 0.90	0.024 0.60	0.035 0.90	inches mm
RMCS0805	0.047 1.20	0.028 0.70	0.051 1.30	inches mm
RMCS1206	0.079 2.00	0.035 0.90	0.063 1.60	inches mm
RMCS1210	0.079 2.00	0.035 0.90	0.110 2.80	inches mm
RMCS2010	0.150 3.80	0.035 0.90	0.110 2.80	inches mm
RMCS2512	0.150 3.80	0.063 1.60	0.138 3.50	inches mm

**Soldering Condition**



IR Reflow Soldering



Wave Soldering (Flow Soldering)

- (1) Time of IR reflow soldering at maximum temperature point 260°C:10s
- (2) Time of wave soldering at maximum temperature point 260°C:10s
- (3) Time of soldering iron at maximum temperature point 410°C:5s

### RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 2). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament.

RoHS Compliance Status						
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
RMCS	Sulfur Resistant Thick Film Surface Mount Chip Resistor	SMD	YES(1)	100% Matte Sn over Ni	Always	Always

Note (1): RoHS Compliant by means of exemption 7c-l.

### "Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the Eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

### Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

### Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

## How to Order

1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>R</b>	<b>M</b>	<b>C</b>	<b>S</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>3</b>	<b>J</b>	<b>T</b>	<b>4</b>	<b>K</b>	<b>7</b>	<b>0</b>

Product Series		Size	Power	Tolerance			Packaging				Resistance Value
RMCS	Sulfur Resistant	0201	0.05W	Code	Tol	Value	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder. 1 ohm = 1R00 100 Kohm = 100K 1.02 Mohm = 1M02 Zero ohm jumper = 0R00
		0402	0.063W	D	0.5%	E96, E24	G	10" Reel - Paper Tape	0201, 0402	15,000	
		0603	0.1W	F	1%		T	7" Reel - Paper Tape	0603, 0805	5,000	
		0805	0.125W	J	5%	E24			1206, 1210		
		1206	0.25W	Z	Jumper				2010, 2512	4,000	
		1210	0.33W								
		2010	0.75W								
		2512	1W								