

Features:

- Small size and light weight
- Reliability and high quality
- Wider terminations provide higher power handling and more robust thermal performance
- RoHS compliant and halogen-free



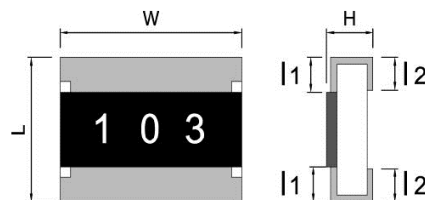
Electrical Specifications

Type / Code	Power Rating @ 70 °C (Watts)	Maximum Working Voltage ⁽¹⁾	Maximum Overload Voltage	TCR (ppm/°C)	Ohmic Range (Ω) and Tolerance ⁽²⁾
					1%, 5%
RMCW0612	0.75 W	200 V	400 V	± 400 ppm/°C	1 - 9.1
				± 100 ppm/°C	10 - 10 M
RMCW1020	1 W			± 400 ppm/°C	1 - 9.1
				± 100 ppm/°C	10 - 10 M
RMCW1218	1 W			± 400 ppm/°C	1 - 9.1
				± 100 ppm/°C	10 - 10 M
RMCW1225	2 W			± 400 ppm/°C	1 - 9.1
				± 100 ppm/°C	10 - 10 M
RMCW2030	3 W			± 400 ppm/°C	1 - 9.1
				± 100 ppm/°C	10 - 10 M

(1) Lesser of √PR or maximum working voltage

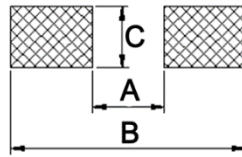
(2) E96 resistance values may be available in 1% tolerance but will be subject to a high MOQ's - contact factory

Mechanical Specifications



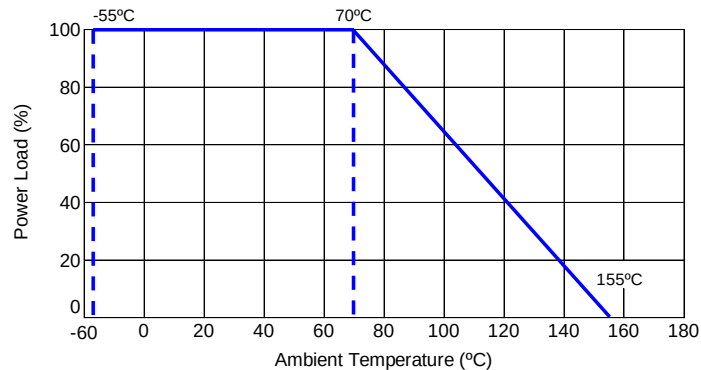
Type / Code	L	W	H	l1	l2	Unit
RMCW0612	0.063 ± 0.008 1.60 ± 0.20	0.126 ± 0.008 3.20 ± 0.20	0.022 ± 0.004 0.55 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMCW1020	0.098 ± 0.008 2.50 ± 0.20	0.197 ± 0.008 5.00 ± 0.20	0.022 ± 0.004 0.55 ± 0.10	0.016 ± 0.008 0.40 ± 0.20	0.030 ± 0.008 0.75 ± 0.20	inches mm
RMCW1218	0.122 ± 0.004 3.10 ± 0.10	0.181 ± 0.004 4.60 ± 0.10	0.022 ± 0.002 0.55 ± 0.05	0.016 ± 0.008 0.40 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMCW1225	0.126 ± 0.008 3.20 ± 0.20	0.256 ± 0.008 6.50 ± 0.20	0.022 ± 0.008 0.55 ± 0.20	0.016 ± 0.008 0.40 ± 0.20	0.030 ± 0.008 0.75 ± 0.20	inches mm
RMCW2030	0.201 ± 0.004 5.10 ± 0.10	0.299 ± 0.004 7.60 ± 0.10	0.047 ± 0.004 1.20 ± 0.10	0.031 ± 0.008 0.80 ± 0.20	0.031 ± 0.008 0.80 ± 0.20	inches mm

Recommended Pad Layout



Type / Code	A	B	C	Unit
RMCW0612	0.024	0.114	0.126	inches
	0.60	2.90	3.20	mm
RMCW1020	0.030	0.134	0.197	inches
	0.75	3.40	5.00	mm
RMCW1218	0.080	0.167	0.189	inches
	2.04	4.24	4.80	mm
RMCW1225	0.033	0.146	0.252	inches
	0.85	3.70	6.40	mm
RMCW2030	0.138	0.295	0.307	inches
	3.50	7.50	7.80	mm

Power Derating Curve:

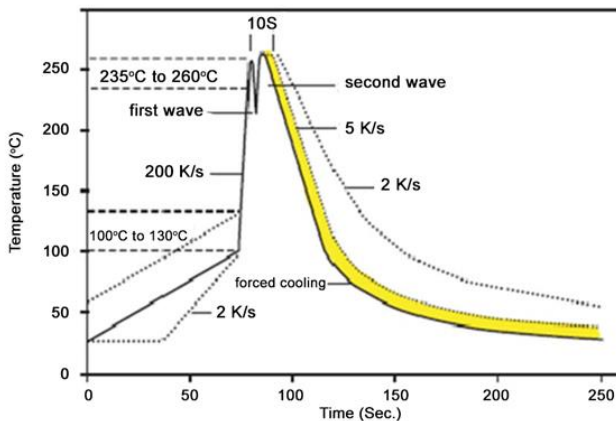


Performance Characteristics

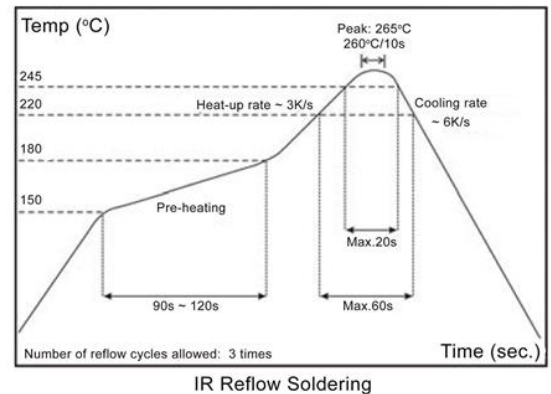
Test Item	Test Method	Test Specification		Test Condition
		1%	5%	
Temperature Coefficient of Resistance	JIS-C-5201-1 4.8 IEC-60115-1 4.8	Within the specified tolerance		At 25 / -55 °C and 25 °C / +155 °C, 25 °C is the reference temperature
Short Time Overload	JIS-C-5201-1 4.13 IEC-60115-1 4.13	± (1% + 0.05 Ω)	± (2% + 0.1 Ω)	2.5 times RCWV or Max. Overload voltage whichever is less for 5 seconds
Leaching	JIS-C-5201-1 4.18 IEC-60068-2-58 8.2.1	Individual leaching area ≤ 5% Total leaching area ≤ 10%		260 ± 5 °C for 30 seconds
Resistance to Soldering Heat	JIS-C-5201-1 4.18 IEC-60115-1 4.18	± (0.5% + 0.05 Ω)	± (1% + 0.05 Ω)	260 ± 5 °C for 10 seconds
Rapid Change of Temperature	JIS-C-5201-1 4.19 IEC-60115-1 4.19	± (0.5% + 0.05 Ω)	± (1% + 0.1 Ω)	-55 °C to +155 °C, 5 cycles
Resistance to Solvent	JIS-C-5201-1 4.29	± (0.5% + 0.05 Ω)	± (0.5% + 0.05 Ω)	The tested resistor should be immersed into isopropyl alcohol of 20 ~ 25 °C for 60 seconds. Then the resistor is left in room temperature for 48 hours.
Damp Heat with Load	JIS-C-5201-1 4.24 IEC-60115-1 4.24	± (1% + 0.05 Ω)	± (2% + 0.05 Ω)	40 ± 2 °C, 90 ~ 95% R.H. RCWV or Max. Working voltage whichever is less for 1000 hours with 1.5 hours "ON" and 0.5 hour "OFF"
Load Life (Endurance)	JIS-C-5201-1 4.25 IEC-60115-1 4.25.1	± (1% + 0.05 Ω)	± (3% + 0.1 Ω)	70 ± 2 °C, RCWV or Max. Working voltage whichever is less for 1000 hours with 1.5 hours "ON" and 0.5 hour "OFF"
Insulation Resistance	JIS-C-5201-1 4.6 IEC-60115-1 4.6	≥ 10 G Ω		Apply 100 VDC for 1 minute
Bending Strength	JIS-C-5201-1 4.33 IEC-60115-1 4.33	± (1% + 0.05 Ω)	± (1% + 0.05 Ω)	Bending once for 5 seconds. D: 0612, 1020, 1218, 1225, 2030 = 2 mm

Recommended Customer Soldering Parameters

Wave Solder Temperature Condition



Solder Reflow Temperature Condition

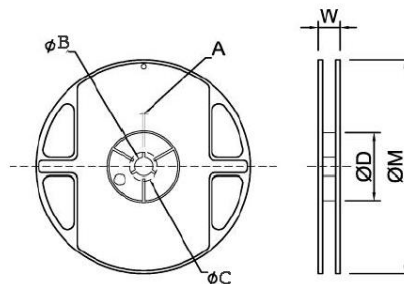


Rework temperature (hot air equipment): 350 °C, 3 ~ 5 seconds

Recommended reflow methods:

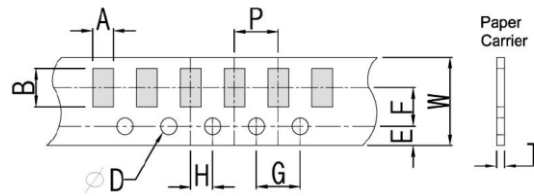
- IR, vapor phase oven, hot air oven
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Reel Specifications



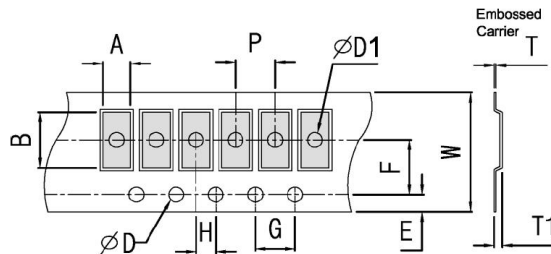
Type / Code	Reel		A	B	C	D	W	M	Unit
	Size	Quantity							
RMCW0612	7"	5000	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.453 ± 0.079 11.50 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm
RMCW1020	7"	4000	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.630 ± 0.079 16.00 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm
RMCW1218	7"	4000	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.630 ± 0.079 16.00 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm
RMCW1225	7"	4000	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.630 ± 0.079 16.00 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm
RMCW2030	7"	1000	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.748 ± 0.079 19.00 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm

Packaging Specifications – Paper Tape



Type / Code	A	B	W	E	F	Unit
RMCW0612	0.075 ± 0.008	0.138 ± 0.008	0.315 ± 0.008	0.069 ± 0.004	0.138 ± 0.002	inches
	1.90 ± 0.20	3.50 ± 0.20	8.00 ± 0.20	1.75 ± 0.10	3.50 ± 0.05	mm
	G	H	T	D	P	Unit
	0.157 ± 0.004	0.079 ± 0.002	0.030 ± 0.004	$0.059 +0.004 / -0$	0.157 ± 0.004	inches
	4.00 ± 0.10	2.00 ± 0.05	0.75 ± 0.10	$1.50 +0.10 / -0$	4.00 ± 0.10	mm

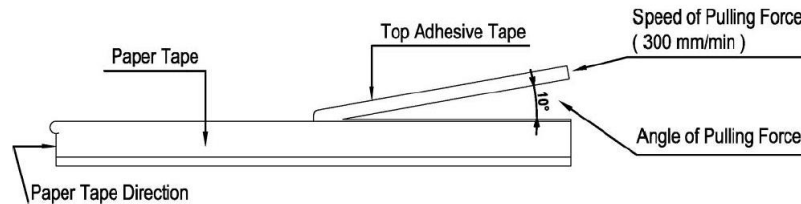
Packaging Specifications – Embossed Tape



Type / Code	A	B	W	E	F	G	Unit
RMCW1020	0.110 ± 0.008	0.220 ± 0.008	0.472 ± 0.004	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	inches
	2.80 ± 0.20	5.60 ± 0.20	12.00 ± 0.10	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	mm
RMCW1225	0.134 ± 0.008	0.264 ± 0.008	0.472 ± 0.004	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	inches
	3.40 ± 0.20	6.70 ± 0.20	12.00 ± 0.10	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	mm
RMCW1218	0.130 ± 0.008	0.181 ± 0.008	0.472 ± 0.004	0.069 ± 0.004	0.217 ± 0.002	0.157 ± 0.004	inches
	3.30 ± 0.20	4.60 ± 0.20	12.00 ± 0.10	1.75 ± 0.10	5.50 ± 0.05	4.00 ± 0.10	mm
RMCW2030	0.217 ± 0.008	0.311 ± 0.008	0.630 ± 0.004	0.069 ± 0.004	0.295 ± 0.002	0.157 ± 0.004	inches
	5.50 ± 0.20	7.90 ± 0.20	16.00 ± 0.10	1.75 ± 0.10	7.50 ± 0.05	4.00 ± 0.10	mm
Type / Code	H	T	D	D1	T1	P	Unit
RMCW1020	0.079 ± 0.002	0.009 ± 0.004	$0.059 +0.004 / -0$	0.059 ± 0.004	0.033 ± 0.006	0.157 ± 0.004	inches
	2.00 ± 0.05	0.23 ± 0.10	$1.50 +0.10 / -0$	1.50 ± 0.10	0.85 ± 0.15	4.00 ± 0.10	mm
RMCW1225	0.079 ± 0.002	0.009 ± 0.004	$0.059 +0.004 / -0$	0.059 ± 0.004	0.033 ± 0.006	0.157 ± 0.004	inches
	2.00 ± 0.05	0.23 ± 0.10	$1.50 +0.10 / -0$	1.50 ± 0.10	0.85 ± 0.15	4.00 ± 0.10	mm
RMCW1218	0.079 ± 0.002	0.009 ± 0.004	$0.059 +0.004 / -0$	0.059 ± 0.004	0.033 ± 0.006	0.157 ± 0.004	inches
	2.00 ± 0.05	0.23 ± 0.10	$1.50 +0.10 / -0$	1.50 ± 0.10	0.85 ± 0.15	4.00 ± 0.10	mm
RMCW2030	0.079 ± 0.002	0.010 ± 0.004	$0.059 +0.004 / -0$	0.059 ± 0.004	0.051 ± 0.004	0.315 ± 0.008	inches
	2.00 ± 0.05	0.25 ± 0.10	$1.50 +0.10 / -0$	1.50 ± 0.10	1.30 ± 0.10	8.00 ± 0.20	mm

Peel Force of Top Cover Tape

Top Adhesive Peel Off Strength: 10 ~ 70 g



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 3). 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 as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

"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
R	M	C	W	0	6	1	2	J	T	1	0	R	0
Product Series		Size	Power	Tolerance			Packaging				Resistance Value		
RNCW	Wide Termination Thick Film	0612	0.75 W	Code	Tol	Value(*)	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder. 1 ohm = 1R00 100 ohm = 100R 10 Kohm = 10K0 10 Mohm = 10M0		
		1020	1 W	F	1%	E24	T	7" Reel - Paper Tape	0612	5000			
		1218	1 W	J	5%				1020, 1218, 1225	4000			
		1225	2 W						2030	1000			
		2030	3 W										

(*) E96 resistance values may be available in 1% tolerance but will be subject to high MOQ's. Contact factory.