Vishay Dale



# Thick Film Chip Resistors, Military/Established Reliability MIL-PRF-55342 Qualified, Type RM



#### **FEATURES**

- Fully conforms to the requirements of MIL-PRF-55342
- Established reliability Verified failure rate; M, P, R, S and T levels
- Operating temperature range is 55 °C to + 150 °C
- 100 % Group A screening per MIL-PRF-55342
- Termination Style B Tin/Lead wraparound over nickel barrier
- For MIL-PRF-32159 zero ohm jumpers, see Vishay Dale's RCWPM Jumper (Military M32159) data sheet

STANDARD ELECTRICAL SPECIFICATIONS									
VISHAY DALE MODEL	MIL-PRF-55342 STYLE	MIL SPEC. SHEET	TERM.	POWER RATING P <sub>70 °C</sub> W	MAX. OPERATING VOLTAGE	CHAR.	TOLERANCE %	$\begin{array}{c} \textbf{RESISTANCE} \\ \textbf{RANGE} \ \Omega \end{array}$	
RCWPM-0502	RM0502	01	В	0.05	40	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 9.1 10 to 22M	
RCWPM-550	RM0505	02	В	0.125	40	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 9.1 10 to 22M	
RCWPM-5100	RM1005	03	В	0.20	75	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-5150	RM1505	04	В	0.15	125	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-7225	RM2208	05	В	0.225	175	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-575	RM0705	06	В	0.15	50	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-1206	RM1206	07	В	0.25	100	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-2010	RM2010	08	В	0.80	150	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-2512	RM2512	09	В	1.0	200	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-1100	RM1010	10	В	0.50	75	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-0402	RM0402	11	В	0.05	30	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 9.1 10 to 22M	
RCWPM-0603	RM0603	12	В	0.10	50	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 5.6 5.62 to 22M	
RCWPM-0302	RM0302	13	В	0.04	15	M K, M	± 2 to ± 10 ± 1 to ± 10	1 to 9.1 10 to 22M	

#### Note

 DSCC has created a series of drawings to support the need for 0201-sized product. Vishay Dale is listed as a resource on these drawing as follows:

DSCC DRAWING NUMBER	VISHAY DALE MODEL	TERM.	POWER RATING P <sub>70 °C</sub> W	RES. RANGE $\Omega$	RES. TOL.	TEMP. COEF. ppm/°C	MAX. WORKING VOLTAGE
07009	RCWP-0201	В	0.05	47 to 1M 10 to 1M	± 1; ± 5	100 200	30
07010	RCWP-0201	В	0.05	47 to 1M 10 to 1M	± 1; ± 5	100 300	30

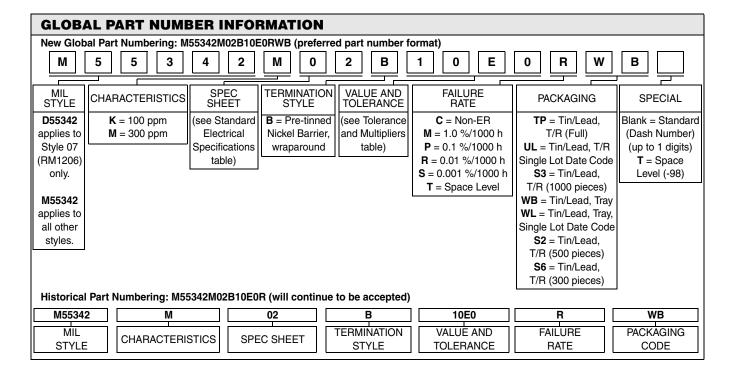
These drawings can be viewed at: <a href="www.dscc.dla.mil/Programs/MilSpec/listDwgs.asp?DocType=DSCCdwg">www.dscc.dla.mil/Programs/MilSpec/listDwgs.asp?DocType=DSCCdwg</a>



## RCWPM (Military M/D55342)

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RESISTANCE TOLERANCE AND MULTIPLIERS							
	TOL	MULTIPLIED	VALUE				
± 1 %	± 2 %	± 5 %	± 10 %	MULTIPLIER	RANGE ( $\Omega$ )		
D	G	J	M	1	1 - 9xx		
E	Н	К	N	1000	1K - 9xxK		
F	Т	L	Р	1 000 000	1M - 22M		
Examples:		$\begin{array}{c} 11\text{D3} = 11.3~\Omega \pm 1~\% \\ 10\text{E0} = 10~\text{k}\Omega \pm 1~\% \\ 332\text{D} = 332~\Omega \pm 1~\% \\ 2\text{F21} = 2.21~\text{M}\Omega \pm 1~\% \\ 51\text{G0} = 51~\Omega \pm 2~\% \\ 10\text{H0} = 10~\text{k}\Omega \pm 2~\% \\ 33\text{H0} = 33~\text{k}\Omega \pm 2~\% \\ 22\text{T0} = 22~\text{M}\Omega \pm 2~\% \end{array}$	$15J0 = 15 \Omega \pm 5 \%$ $10K0 = 10 k\Omega \pm 5 \%$ $560K = 560 k\Omega \pm 5 \%$ $8L20 = 8.2 M\Omega \pm 5 \%$ $10M0 = 10 \Omega \pm 10 \%$ $10N0 = 10 k\Omega \pm 10 \%$ $2P70 = 2.7 M\Omega \pm 10 \%$ $8P20 = 8.2 M\Omega \pm 10 \%$				

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## RCWPM (Military M/D55342)

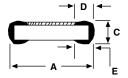
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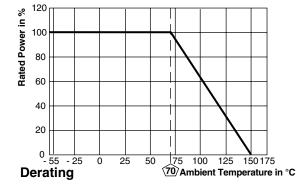


**DIMENSIONS** in inches [millimeters]





VISHAY DALE MODEL	MIL-PRF-55342 STYLE	MIL. SPEC. SHEET	A (Length)	B (Width)	C (Height)	D (Top Term)	E (Bottom Term)
RCWPM-0502	RM0502	01	$0.055 \pm 0.005$ [1.40 ± 0.13]	$0.023 \pm 0.003$ [0.58 ± 0.08]	$0.015 \pm 0.003$ $[0.38 \pm 0.08]$	$0.010 \pm 0.005$ [0.25 ± 0.13]	0.015 ± 0.005 [0.38 ± 0.13]
RCWPM-550	RM0505	02	0.055 ± 0.005 [1.40 ± 0.13]	0.050 ± 0.005 [1.27 ± 0.13]	$0.020 \pm 0.005$ [0.51 ± 0.13]	$0.010 \pm 0.005$ [0.25 ± 0.13]	0.015 ± 0.005 [0.38 ± 0.13]
RCWPM-5100	RM1005	03	$0.105 \pm 0.005$ [2.67 ± 0.13]	$0.050 \pm 0.005$ [1.27 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$
RCWPM-5150	RM1505	04	$0.155 \pm 0.005$ $[3.94 \pm 0.13]$	$0.050 \pm 0.005$ [1.27 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$
RCWPM-7225	RM2208	05	$0.230 \pm 0.005$ [5.84 ± 0.13]	$0.075 \pm 0.005$ [1.91 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.020 \pm 0.005$ [0.51 ± 0.13]	0.020 ± 0.005 [0.51 ± 0.13]
RCWPM-575	RM0705	06	$0.080 \pm 0.005$ [2.03 ± 0.13]	$0.050 \pm 0.005$ [1.27 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$
RCWPM-1206	RM1206	07	$0.125 \pm 0.005$ $[3.18 \pm 0.13]$	$0.063 \pm 0.005$ [1.60 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$
RCWPM-2010	RM2010	08	0.197 ± 0.006 [5.00 ± 0.15]	$0.098 \pm 0.005$ [2.49 ± 0.13]	$0.020 \pm 0.005$ [0.51 ± 0.13]	$0.020 \pm 0.005$ [0.51 ± 0.13]	0.020 ± 0.005 [0.51 ± 0.13]
RCWPM-2512	RM2512	09	$0.250 \pm 0.006$ [6.35 ± 0.15]	$0.124 \pm 0.005$ $[3.15 \pm 0.13]$	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$
RCWPM-1100	RM1010	10	$0.105 \pm 0.005$ [2.67 ± 0.13]	$0.100 \pm 0.005$ [2.54 ± 0.13]	$0.020 \pm 0.005$ $[0.51 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$	$0.015 \pm 0.005$ $[0.38 \pm 0.13]$
RCWPM-0402	RM0402	11	$0.039 \pm 0.003$ [0.99 ± 0.08]	$0.020 \pm 0.003$ [0.51 ± 0.08]	$0.013 \pm 0.003$ [0.33 ± 0.08]	$0.010 \pm 0.005$ [0.25 ± 0.13]	0.010 ± 0.005 [0.25 ± 0.13]
RCWPM-0603	RM0603	12	$0.063 \pm 0.005$ [1.60 ± 0.13]	0.032 ± 0.005 [0.81 ± 0.13]	0.018 ± 0.005 [0.46 ± 0.13]	0.012 ± 0.005 [0.31 ± 0.13]	0.015 ± 0.005 [0.38 ± 0.13]
RCWPM-0302	RM0302	13	$0.034 \pm 0.004$ [0.86 ± 0.10]	$0.021 \pm 0.003$ [0.53 ± 0.08]	$0.015 \pm 0.003$ $[0.38 \pm 0.08]$	0.007 ± 0.005 [0.18 ± 0.13]	0.008 ± 0.005 [0.20 ± 0.13]
RCWP-0201			$0.024 \pm 0.002$ [0.60 ± 0.05]	$0.012 \pm 0.002$ [0.30 ± 0.05]	$0.009 \pm 0.002$ [0.23 ± 0.05]	0.006 ± 0.003 [0.15 ± 0.07]	0.006 + 0.002 - 0.004 [0.15 + 0.05 - 0.10]



**CAGE CODE: 91637 and SH903** 

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