

LINKS TO ADDITIONAL RESOURCES

7 6

2 3 4

8

8 7 6 5

ξR.

8

R.

Manufactured in ULTRAFILM technology, these resistor network chips have a high level of integration, wide ohmic value range, very low temperature coefficient 10 ppm/°C which are unequaled on the market today. Laser trimming can provide excellent precision down to 0.1 % abs 0.01 % ratio.

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R₂ § R₃ §

 ≩R₄ J ∡ ≩R₅

≹R₃

6

R₃, 5

3 4

Vishay Sfernice

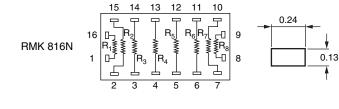
Wirebondable Thin Film Chip Resistor Networks

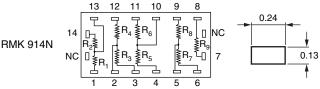


- High precision tolerances down to 0.01 % ratio
- Very low temperature coefficient: 10 ppm/°C abs., 2 ppm/°C ratio
- Aluminum pads
- Excellent stability < 300 ppm, 2000 h at Pn at
- +70 °C
- Wirebondable
- For high temperature version refer to RMKHT (www.vishay.com/doc?60075)
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	5 ppm/°C	1 ppm/°C
	ABS	RATIO
TOL.	0.1 %	0.01 %





0.2 0.1 0.1 RMK 816N

0.1

0.2

0.4

Actual Size

RMK 508N

RMK 408N

3 D 3D Models

SCHEMATIC

RMK 48N		$1 \underbrace{\begin{bmatrix} \Gamma & H_4 & V_4 \\ R_1 & R_2 \\ 2 & 3 \end{bmatrix}}_{2 & 3} 4$						
STAND/	ARD E	LECTRICAL	SPECIFICATI	ONS				
MODEL	SIZE	RESISTANCE RANGE Ω	POWER RATING PER PACKAGE P _{70°C} W	POWER RATING PER PACKAGE P125 °C W	ABSOLUTE TOLERANCE ± %	RATIO TOLERANCE ± %	ABSOLUTE TCR ⁽¹⁾ ± ppm/°C	RATIO TCR ⁽²⁾ ± ppm/°C
RMK 48N	0808	1K to 200K	0.125	0.050	0.1, 0.25, 0.5, 1	0.01, 0.02, 0.05, 0.1	10, 5	1; 2
RMK 408N	0610	1K to 200K	0.250	0.125	0.1, 0.25, 0.5, 1	0.01, 0.02, 0.05, 0.1	10, 5	1; 2
RMK 508N	0610	1K to 200K	0.250	0.125	0.1, 0.25, 0.5, 1	0.01, 0.02, 0.05, 0.1	10, 5	1; 2
RMK 816N	0714	1K to 200K	0.250	0.125	0.1, 0.25, 0.5, 1	0.01, 0.02, 0.05, 0.1	10, 5	1; 2
RMK 914N	0714	1K to 200K	0.250	0.125	0.1, 0.25, 0.5, 1	0.01, 0.02, 0.05, 0.1	10, 5	1; 2

Notes

⁽¹⁾ \pm 10 ppm/°C maximum at -55 °C to +155 °C; \pm 5 ppm/°C maximum at 0 °C to +70 °C

 $^{(2)}$ ± 1 ppm/°C typical, ± 2 ppm/°C maximum at -55 °C to +155 °C

TEST	SPECIFICATIONS	CONDITION
Stability	< 300 ppm	2000 h at +70 °C under Pn
Voltage coefficient	< 0.1 ppm/V	
Limiting voltage	100 V per resistor	
Operating temperature range	-55 °C to +155 °C ⁽¹⁾	
Storage temperature range	-55 °C to +155 °C	
Noise	< -35 dB	
Thermal EMF	0.01 µV/°C	
Shelf life stability	50 ppm	1 year at +25 °C

Note ⁽¹⁾ For 200 °C operations please consult factory

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Pb-free RoHS COMPLIANT

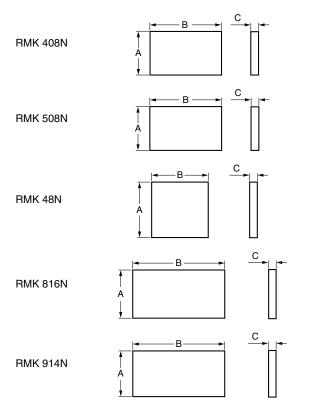
HALOGEN FREE <u>GREEN</u> (5-2008)

RMK 408N, 508N, 48N, 816N, 914N (CN)



m

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DIMENSIONS in millimeters		
A	1.6 ± 0.1	
В	2.6 ± 0.1	
С	0.4 maximum	

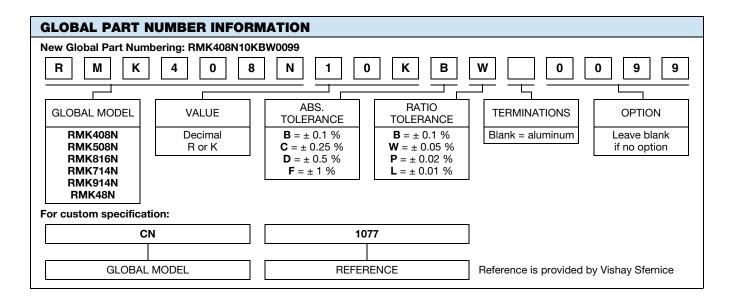
DIMENSIONS in millimeters		
A	1.6 ± 0.1	
В	2.6 ± 0.1	
С	0.4 maximum	

DIMENSIONS in millimeters		
A 2.1 ± 0.1		
В	2.1 ± 0.1	
С	0.4 maximum	

DIMENSIONS in millimeters		
A 1.8 ± 0.1		
В	3.5 ± 0.1	
С	0.4 maximum	

DIMENSIONS in millimeters		
A	1.8 ± 0.1	
В	3.5 ± 0.1	
С	0.4 maximum	

MECHANICAL SPECIFICATIONS		
Resistive element	Nichrome	
Substrate material	Alumina (silicon on some cases)	
Bonding pads	Aluminum	
Passivation	Silicon nitride	



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