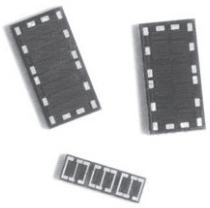
Wirebondable Thin Film Chip Resistor Networks



Actual Size

FEATURES

- 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 www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

LINKS TO ADDITIONAL RESOURCES

3D Models

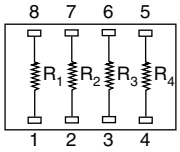
Manufactured in ULTRAFILM technology, these resistor network chips have a high level of integration, wide ohmic value range, very low temperature coefficient 10 ppm/°C which are unequaled on the market today. Laser trimming can provide excellent precision down to 0.1 % abs 0.01 % ratio.

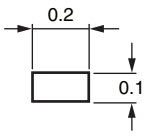
TYPICAL PERFORMANCE

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

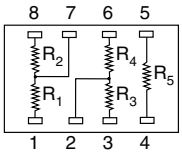
SCHEMATIC

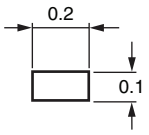
RMK 408N



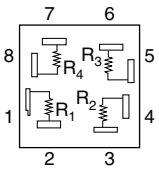


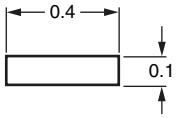
RMK 508N



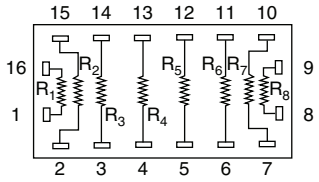


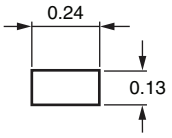
RMK 48N



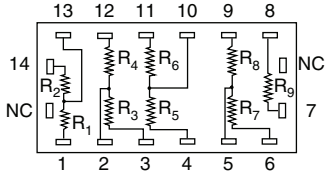


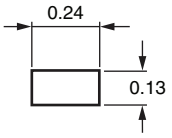
RMK 816N





RMK 914N





STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE	RESISTANCE RANGE Ω	POWER RATING PER PACKAGE $P_{70\,°C}$ W	POWER RATING PER PACKAGE $P_{125\,°C}$ 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) ± 10 ppm/°C maximum at -55 °C to +155 °C; ± 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

PERFORMANCES

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

For technical questions, contact: sferthinfilm@vishay.com

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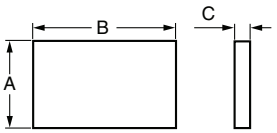
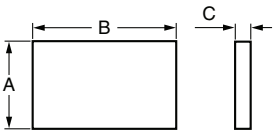
RMK 408N



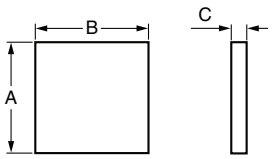
DIMENSIONS in millimeters	
A	1.6 ± 0.1
B	2.6 ± 0.1
C	0.4 maximum

RMK 508N



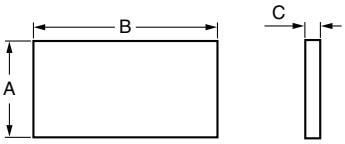
DIMENSIONS in millimeters	
A	1.6 ± 0.1
B	2.6 ± 0.1
C	0.4 maximum

RMK 48N



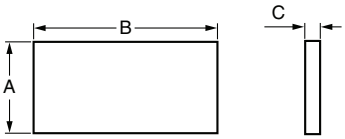
DIMENSIONS in millimeters	
A	2.1 ± 0.1
B	2.1 ± 0.1
C	0.4 maximum

RMK 816N



DIMENSIONS in millimeters	
A	1.8 ± 0.1
B	3.5 ± 0.1
C	0.4 maximum

RMK 914N



DIMENSIONS in millimeters	
A	1.8 ± 0.1
B	3.5 ± 0.1
C	0.4 maximum

MECHANICAL SPECIFICATIONS

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

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: RMK408N10KBW0099

R	M	K	4	0	8	N	1	0	K	B	W		0	0	9	9

GLOBAL MODEL	VALUE	ABS. TOLERANCE	RATIO TOLERANCE	TERMINATIONS	OPTION
RMK408N **RMK508N** **RMK816N** **RMK714N** **RMK914N** **RMK48N**	Decimal R or K	**B** = ± 0.1 % **C** = ± 0.25 % **D** = ± 0.5 % **F** = ± 1 %	**B** = ± 0.1 % **W** = ± 0.05 % **P** = ± 0.02 % **L** = ± 0.01 %	Blank = aluminum	Leave blank if no option

For custom specification:

CN	1077	
GLOBAL MODEL	REFERENCE	Reference is provided by Vishay Sfernice

For technical questions, contact: sferthinfilm@vishay.com

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