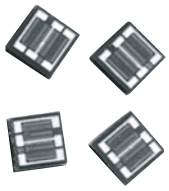
Wirebondable Dual Value Thin Film Chip Resistor Networks, Center Tap



Actual Size

The demand for high precision, high stability microchips for both military and industrial environments is increasing with the growth and sophistication of modern day hybrid circuitry. The need for high accuracy ultra stable micro dividers particularly triggered the development of these third generation nickel chromium microchip dividers which offer standards of accuracy and thermal / time stability never achieved before in the conventional second generation thin metal film technologies.

FEATURES

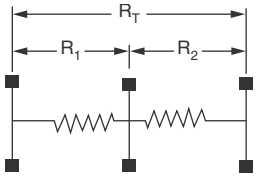
- High precision
- Very low temperature coefficient < 10 ppm/°C
- Excellent stability 0.03 % (2000 h, rated power, at + 70 °C)
- Aluminum pads
- High temperature version (up to 230 °C) see RMKHT (www.vishay.com/doc?60075)
- Wirebondable
- Ohmic range 1 kΩ to 500 kΩ
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

SCHEMATICS



$R_T = R_1 + R_2$ with $R_1 = R_2$ Standard

(Unequal values on request)

PERFORMANCES		
Stability	300 ppm typical	2000 h at +70 °C under Pn
Voltage coefficient	< 0.01 ppm/V	
Limiting voltage	100 V_{DC} on R_T	
Noise	< -35 dB typical	MIL-STD-202 method 308
Thermal EMF	< 0.01 µV/°C	
Shelf life stability	50 ppm	1 year

STANDARD ELECTRICAL SPECIFICATIONS

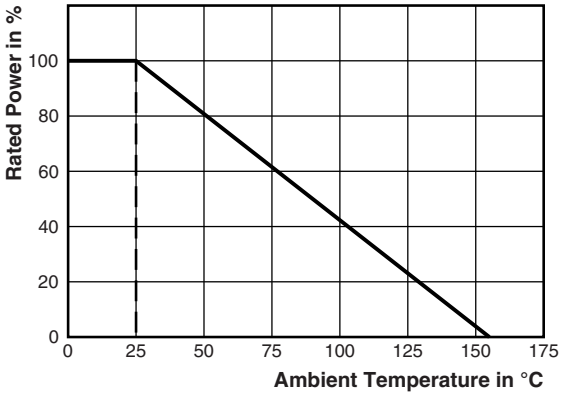
MODEL	SIZE	RESISTANCE RANGE (1) Ω	POWER RATING $P_{70\,°C}$ W	ABSOLUTE TOLERANCE ± %	RATIO TOLERANCE ± %	ABSOLUTE TCR (2) ± ppm/°C	RATIO TCR ± ppm/°C
RMK 33N	0303	1K to 500K	0.050	0.1, 0.5, 1	0.1, 0.05, 0.02, 0.01, no	5, 10	1, 2

Notes

(1) ($R_T = R_1 + R_2$)

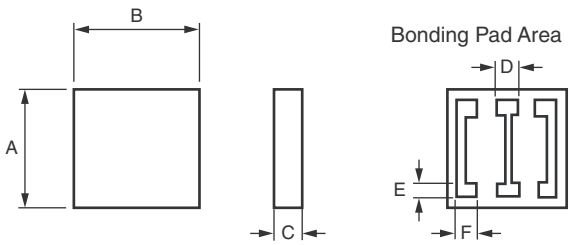
(2) ± 5 ppm/°C maximum at 0 °C to +70 °C, ± 10 ppm/°C maximum at -55 °C to +155 °C

DERATING



CLIMATIC SPECIFICATIONS	
Operating temperature range	-55 °C to +155 °C
Storage temperature range	-55 °C to +155 °C

DIMENSIONS



DIMENSION	INCHES	MILLIMETERS
A	0.033 ± 0.004	0.855 ± 0.10
B	0.033 ± 0.004	0.855 ± 0.10
C	0.01 to 0.015	0.25 to 0.40
D	0.006	0.15
E	0.004	0.10
F	0.006	0.15

MECHANICAL SPECIFICATIONS

Resistive element	Passivated nichrome
Substrate material	Silicon (alumina on request)
Passivation	Silicone nitride
Bonding pads	Aluminum

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: RMK33N5KF25KB0099

R	M	K	3	3	N	5	K	F	2	5	K	B		0	0	9	9

GLOBAL MODEL	R_1 VALUE	ABS. TOLERANCE	R_2 VALUE	RAT. TOLERANCE	TERMINATIONS	OPTION
	Decimal R, K, or M	**B** = ± 0.1 % **W** = ± 0.05 % **D** = ± 0.5 % **F** = ± 1.0 %	Decimal R, K, or M	**B** = ± 0.1 % **W** = ± 0.05 % **P** = 0.02 % **L** = 0.01 % **N** = no	Blank = aluminum	Leave blank if no option

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