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Vishay Sfernice

# 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.

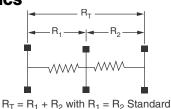
#### **FEATURES**

- High precision
- Very low temperature coefficient < 10 ppm/°C</li>
- 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 k $\Omega$  to 500 k $\Omega$
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

# ROHS COMPLIANT HALOGEN FREE

GREEN (5-2008)

#### SCHEMATICS



(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		

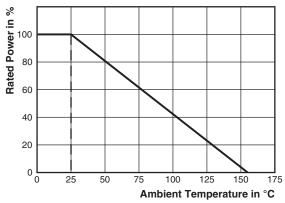
STANDARD ELECTRICAL SPECIFICATIONS							
MODEL	SIZE	RESISTANCE RANGE (1) Ω	POWER RATING P <sub>70°C</sub> W	ABSOLUTE TOLERANCE ± %	RATIO TOLERANCE ± %	ABSOLUTE TCR <sup>(2)</sup> ± ppm/°C	RATIO TCR ± ppm/°C
RMK 33N	0303	1K to 500K	0.050	0.1, 0.5, 1	0.1, 0.05, 0.02, 0.01	5, 10	1, 2

#### Notes

<sup>(1)</sup>  $(R_T = R_1 + R_2)$ 

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

#### **DERATING**



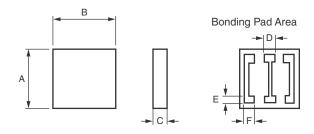
CLIMATIC SPECIFICATIONS		
Operating temperature range	-55 °C to +155 °C	
Storage temperature range	-55 °C to +155 °C	

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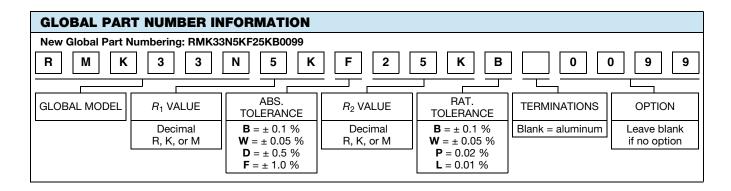
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#### **DIMENSIONS**



DIMENSION	INCHES	MILLIMETERS
Α	0.033 ± 0.004	0.855 ± 0.10
В	0.033 ± 0.004	0.855 ± 0.10
С	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	





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