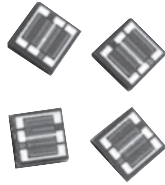


## Dual Value Chip Resistor, Center Tap



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.

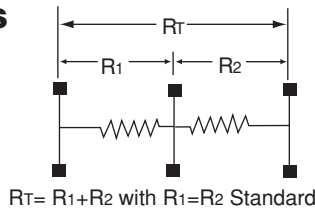
### FEATURES

- High precision
- Very low temperature coefficient
- Excellent stability

### TYPICAL PERFORMANCE

	▲ ABS
TCR	5
TOL	0.1

### SCHEMATICS



### STANDARD ELECTRICAL SPECIFICATIONS

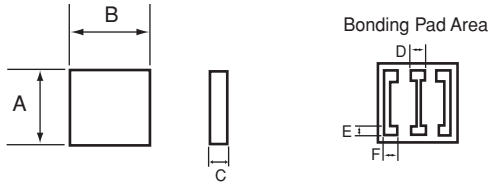
TEST	SPECIFICATIONS	CONDITIONS
SERIES	ULTRAFILM <sup>®</sup>	
Resistance Range	1K ohm to 250K ohms	$(R_T = R_1 + R_2)$
TCR:		
Tracking	$\pm 1\text{ppm}/^\circ\text{C}$ Typical ( $\pm 2\text{ppm}/^\circ\text{C}$ Max.)	- 55°C to + 125°C
Absolute	$\pm 5\text{ppm}/^\circ\text{C}$ Max. $\pm 10\text{ppm}/^\circ\text{C}$ Max.	0°C to + 70°C - 55°C to + 125°C
Tolerance:		
Ratio	0.1%, 0.05%, 0.02%, 0.01%	
Absolute	$\pm 0.05\%$ , $\pm 0.1\%$ , $\pm 0.5\%$ , $\pm 1\%$	
Power Rating:	125mW at 25°C/50mW at + 70°C, 25mW at + 125°C	
Stability	300ppm Typical	2000 hrs. Pn @ + 70°C Under
Voltage Coefficient	< 0.01ppm/Volt	
Working Voltage	100VDC on $R_T$	
Operating Temperature Range	- 55°C to + 155°C**	
Storage Temperature Range	- 55°C to + 155°C	
Noise	< - 35dB Typical	MIL-STD-202 Method 308
Thermal EMF	< 0.01 $\mu\text{V}/^\circ\text{C}$	
Shelf Life Stability	50ppm	1 year

\*\*for 200°C operations please consult factory.

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**DIMENSIONS** in inches and millimeters



DIMENSION	INCHES	MILLIMETERS
A	0.03 ± 0.004	0.76 ± 0.10
B	0.03 ± 0.004	0.76 ± 0.10
C	0.01 ns 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)
Body	Silicon
Passivation	Silicon Nitride
Bonding pads	Aluminum

**How to Order**

Series	Film	R <sub>T</sub> Ohmic Value	Absolute Tolerance	Tolerance Ratio
<b>RMK33</b>	<b>N</b> N = NiCr	<b>100K</b>	<b>±0.5%</b>	<b>0.1%</b>
			±0.1% ±0.05% ±0.5% ±1%	0.1% 0.05% 0.02% 0.01%