Wirebondable High Precision Single Value Thin Film Chip Resistors

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 hybrid circuitry.

The RMK 22 series are single value resistor chips. They provide excellent long term stability 0.03 % (2000 h, rated power, at +70 °C) and low noise characteristics < 35 dB.

FEATURES

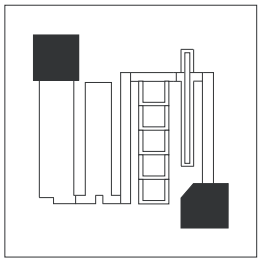
- Small size 20 mils x 20 mils
- Excellent temperature coefficient < 10 ppm/°C
- Excellent stability 0.03 % after 2000 h at Pn at 70 °C
- Aluminum pads
- Wirebondable
- Tolerance down to 0.01 %
- High temperature (230 °C), see RMKHT datasheet (www.vishay.com/doc?60075)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

SCHEMATIC AND PATTERN



STANDARD ELECTRICAL SPECIFICATIONS

MODEL	SIZE	RESISTANCE RANGE Ω	RATED POWER $P_{70\,°C}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE ± %	TEMPERATURE COEFFICIENT ± ppm/°C
RMK 22N	0202	50 to 300K	0.05	100	0.01, 0.02, 0.05, 0.1, 0.5, 1	5, 10

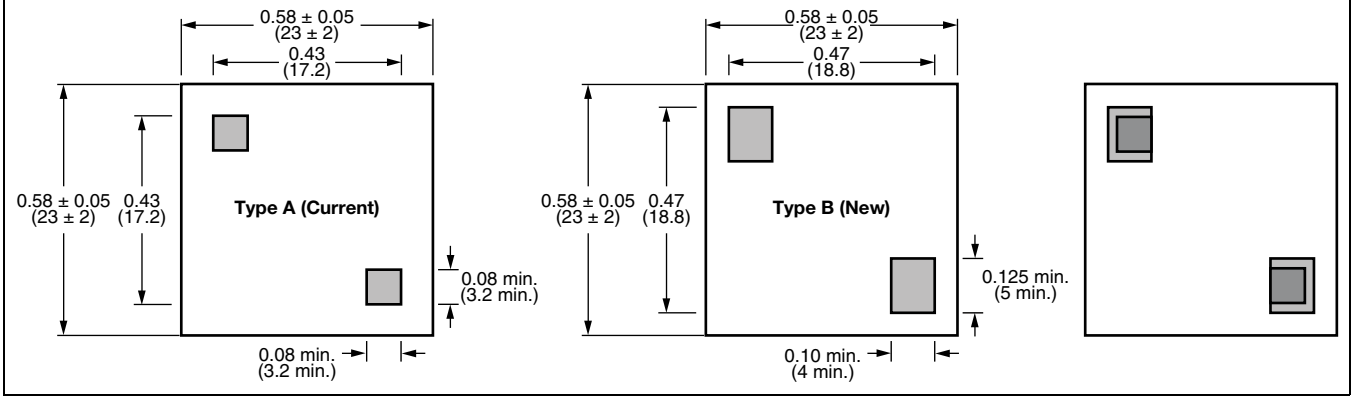
CLIMATIC SPECIFICATIONS

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

MECHANICAL SPECIFICATIONS

Resistive element	Nichrome
Passivation	Silicon nitride
Substrate material	Silicon
Bonding pads	Aluminum

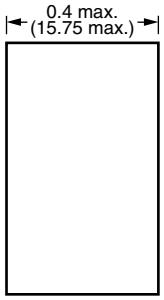
DIMENSIONS in millimeters (mils)



Note

- Customer can get one or the other part, but positions of pads are similar

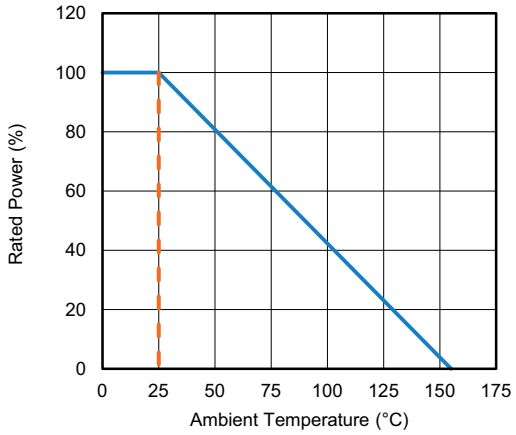
DIMENSIONS in millimeters (mils)



TECHNICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Stability	± 0.03 % typical, ± 0.05 % maximum	2000 h at + 70 °C under Pn
Voltage coefficient	< 0.1 ppm/V	
Noise	< -35 dB typical	MIL-STD-202 method 308
Thermal EMF	< 0.01 µV/°C	
Shelf life stability	50 ppm	1 year at +25 °C

DERATING



GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: RMK22N100KD0016

R	M	K	2	2	N	1	0	0	K	D		0	0	1	6

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

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