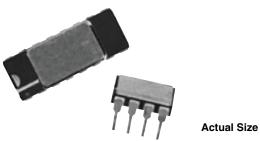
HALOGEN

FREE



## Hermetic, Dual-In-Line Packaged Thin Film Resistor, **Through Hole Networks**



click logo to get started.

**DESIGN SUPPORT TOOLS** 

# Models

The superstable RMKD nickel-chromium integrated networks are available in a range of standard designs which bring a completely new "state-of-the-art" to precision network performance criteria.

Circuit designers can now incorporate into their circuitry the ultimate in today's performance characteristics as "standards", without needing to call out specially engineered designs at premium prices.

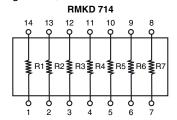
#### **SCHEMATIC**

Standard Configuration, 8 Leads Hermetic DIL

# **RMKD 408**

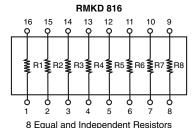
4 Equal and Independent Resistors

Standard Configuration, 14 Leads Hermetic DIL



7 Equal and Independent Resistors

Standard Configuration, 16 Leads Hermetic DIL

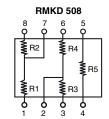


#### **FEATURES**

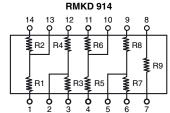
- 500 Ω to 200 kΩ
- High stability: < 300 ppm maximum, 2000 h at Pn at +70 °C
- Gold terminal
- Hermetic cases: Dual-in-line
- Through hole
- Custom available (CNP)
- Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

TYPICAL PERFORMANCE

|      | ABS       | TRACKING |
|------|-----------|----------|
| TCR  | 10 ppm/°C | 1 ppm/°C |
|      | ABS       | RATIO    |
| TOL. | 0.05 %    | 0.02 %   |



Dual Divider Feedback Network with Equal Value Resistors



Quad Divider Feedback Network with Equal Value Resistors

#### Notes

Revision: 12-Apr-18

- For different values in a network a specific part number is used: CNPxxxx. Please consult Vishay Sfernice
- For values outside ohmic range please consult Vishay Sfernice

Document Number: 60049





| STANDARD ELECTRICAL SPECIFICATIONS |                          |                                     |                              |                         |                                            |                                         |
|------------------------------------|--------------------------|-------------------------------------|------------------------------|-------------------------|--------------------------------------------|-----------------------------------------|
| MODEL                              | RESISTANCE<br>RANGE<br>Ω | POWER<br>RATING <sup>(1)</sup><br>W | ABSOLUTE<br>TOLERANCE<br>± % | RATIO<br>TOLERANCE<br>% | ABSOLUTE<br>TCR <sup>(2)</sup><br>± ppm/°C | RATIO<br>TCR <sup>(3)</sup><br>± ppm/°C |
| RMKD 408                           | 500 to 200K              | 0.125                               | 0.05, 0.1                    | 0.01, 0.02, 0.05        | 5, 10                                      | 1, 2                                    |
| RMKD 508                           | 500 to 200K              | 0.250                               | 0.05, 0.1                    | 0.01, 0.02, 0.05        | 5, 10                                      | 1, 2                                    |
| RMKD 714                           | 500 to 200K              | 0.250                               | 0.05, 0.1                    | 0.01, 0.02, 0.05        | 5, 10                                      | 1, 2                                    |
| RMKD 816                           | 500 to 200K              | 0.250                               | 0.05, 0.1                    | 0.01, 0.02, 0.05        | 5, 10                                      | 1, 2                                    |
| RMKD 914                           | 500 to 200K              | 0.250                               | 0.05, 0.1                    | 0.01, 0.02, 0.05        | 5, 10                                      | 1, 2                                    |

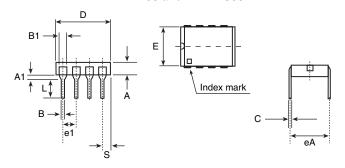
#### **Notes**

- $^{(1)}$  Per Package at +70 °C  $^{(2)}$   $\pm$  5 ppm/°C typical at 0 °C to +70 °C,  $\pm$  10 ppm/°C maximum at -55 °C to +155 °C
- (3) At -55 °C to +155 °C

| PERFORMANCES                     |                                                  |                        |
|----------------------------------|--------------------------------------------------|------------------------|
| TEST                             | SPECIFICATIONS                                   | CONDITIONS             |
| CONFIGURATIONS                   | RMKD 408, RMKD 508, RMKD 714, RMKD 816, RMKD 914 |                        |
| Stability (\( \Delta R \) ratio) | < 300 ppm maximum                                | 2000 h at +70 °C at Pn |
| Working voltage                  | 100 V <sub>CC</sub> on <i>R</i>                  |                        |
| Operating temperature range      | -55 °C to +155 °C                                |                        |
| Storage temperature range        | -55 °C to +155 °C                                |                        |
| Noise                            | -35 dB typical                                   | MIL-STD-202, model 308 |
| Thermal EMF                      | < 0.1 μV/°C                                      |                        |

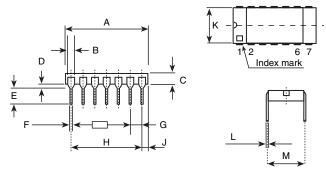
#### **DIMENSIONS**

#### RMKD 408 and RMKD 508



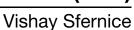
| DIMENSION | INCHES        | MILLIMETERS     |
|-----------|---------------|-----------------|
| D         | 0.401         | 10.20 ± 0.10    |
| B1        | 0.046         | 1.19            |
| A1        | 0.035         | 0.89 ± 0.25     |
| Α         | 0.086         | 2.20 ± 0.20     |
| L         | 0.129 minimum | 3.30 minimum    |
| В         | 0.018         | $0.46 \pm 0.05$ |
| e1        | 0.100         | 2.54 ± 0.10     |
| S         | 0.050         | 1.27 ± 0.50     |
| E         | 0.290         | 7.37 ± 0.20     |
| С         | 0.009         | $0.25 \pm 0.05$ |
| eA        | 0.300         | 7.62 ± 0.20     |

#### RMKD 714 and RMKD 914



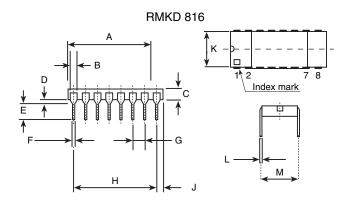
| DIMENSION | INCHES | MILLIMETERS     |
|-----------|--------|-----------------|
| Α         | 0.700  | 17.78 ± 0.20    |
| В         | 0.046  | 1.19            |
| С         | 0.086  | 2.20 ± 0.20     |
| D         | 0.035  | $0.89 \pm 0.25$ |
| E         | 0.129  | 3.30            |
| F         | 0.018  | $0.46 \pm 0.05$ |
| G         | 0.100  | 2.54 ± 0.10     |
| Н         | 0.600  | 15.24 ± 0.10    |
| J         | 0.050  | 1.27 ± 0.50     |
| K         | 0.290  | $7.37 \pm 0.20$ |
| L         | 0.009  | 0.25 ± 0.05     |
| М         | 0.300  | 7.62 ± 0.20     |

Revision: 12-Apr-18 Document Number: 60049





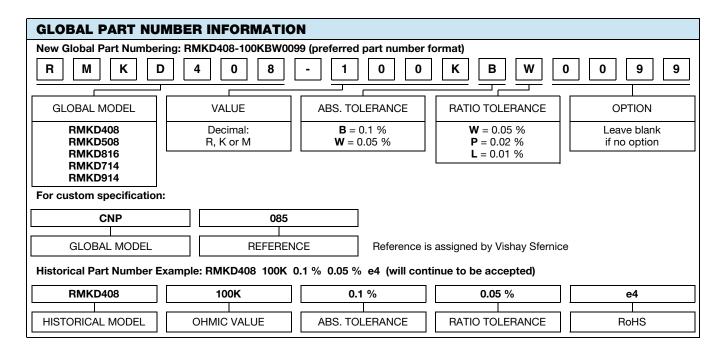
#### **DIMENSIONS**



| DIMENSION | INCHES | MILLIMETERS  |
|-----------|--------|--------------|
| Α         | 0.799  | 20.30 ± 0.20 |
| В         | 0.046  | 1.19         |
| С         | 0.092  | 2.35 ± 0.20  |
| D         | 0.035  | 0.89 ± 0.25  |
| E         | 0.129  | 3.30         |
| F         | 0.018  | 0.46 ± 0.05  |
| G         | 0.100  | 2.54 ± 0.10  |
| Н         | 0.700  | 17.78 ± 0.10 |
| J         | 0.050  | 1.27 ± 0.50  |
| К         | 0.290  | 7.37 ± 0.20  |
| L         | 0.009  | 0.25 ± 0.05  |
| М         | 0.300  | 7.62 ± 0.20  |

| MECHANICAL SPECIFICATIONS |                           |  |
|---------------------------|---------------------------|--|
| Resistive material        | Nichrome                  |  |
| Passivation               | Mineral passivation Si3N4 |  |
| Terminals                 | Gold                      |  |

Option: tin / silver plating: option 0076





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