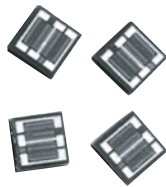


Wirebondable Dual Value Thin Film Chip Resistor Networks, Center Tap



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.

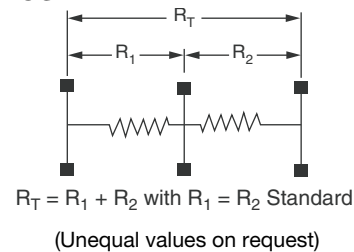
FEATURES

- 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



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

SCHEMATICS



| PERFORMANCES | | |
|----------------------|---------------------------------------|---------------------------------------|
| Stability | 300 ppm typical | 2000 h at +70 °C under P _n |
| 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 |

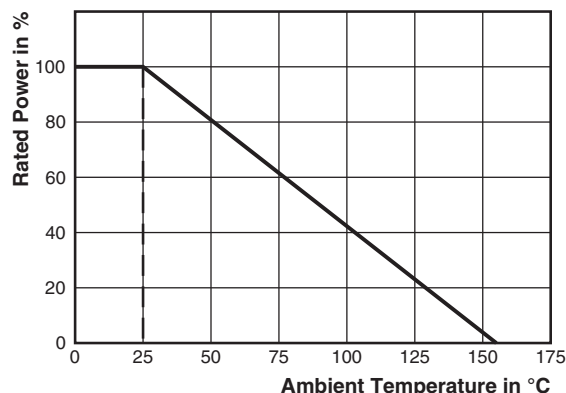
| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|------|--------------------------------------|---|---------------------------|------------------------|---|-----------------------|
| MODEL | SIZE | RESISTANCE RANGE ⁽¹⁾ Ω | POWER RATING P _{70 °C} W | ABSOLUTE 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 | 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

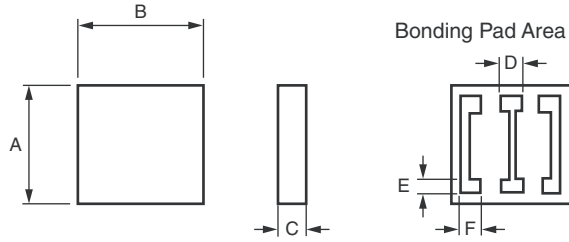
DERATING



| 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 % | | Blank = aluminum | Leave blank if no option | | | | | | | | |



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