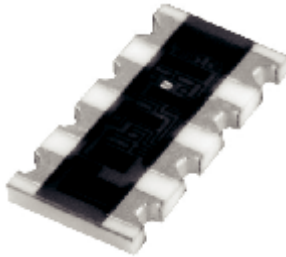


High Precision Thin Film Network, Surface Mount Leadless Resistor Arrays



Product may not be to scale

PR arrays can be used in most applications requiring a matched pair (or set) of resistor elements. The networks provide 2 ppm/°C TCR tracking, a ratio tolerance as tight as 0.02 % and outstanding stability. They are available in 1 mm, 1.35 mm and 1.82 mm pitch.

FEATURES

- Gold terminations over nickel barrier
- High stability passivated nichrome resistive layer
- Tight TCR (10 ppm/°C) and TCR tracking (to 2 ppm/°C)
- Very low noise and voltage coefficient < - 30 dB, 0.1 ppm/V typical
- Ratio tolerance to 0.02 %
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

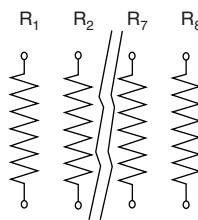


RoHS
COMPLIANT
HALOGEN
FREE

SCHEMATIC

Schematic A: Independent Resistors

Electrical Diagram



Number of Resistors: 2 to 8

$$R_1 = R_2 = \dots R_8$$

| STANDARD ELECTRICAL SPECIFICATIONS | | |
|------------------------------------|---|---------------------|
| TEST | SPECIFICATIONS | CONDITIONS |
| Material | Passivated nichrome | - |
| Pin/Lead Number | - | - |
| Resistance Range | 100 Ω to 200 kΩ (PR100) 100 Ω to 300 kΩ (PR135) 100 Ω to 1 MΩ (PR182) | - |
| TCR: Absolute | ± 10 ppm/°C | - 55 °C to + 125 °C |
| TCR: Tracking | ± 2 ppm/°C | - 55 °C to + 125 °C |
| Tolerance: Absolute | ± 0.1 % to ± 10 % | - |
| Tolerance: Ratio | ± 0.02 % to ± 0.1 % | - |
| Power Rating: Resistor | 100 mW (PR100) 125 mW (PR135) 200 mW (PR182) | At + 70 °C |
| Power Rating: Package | - | - |
| Stability: Absolute | - | - |
| Stability: Ratio | - | - |
| Voltage Coefficient | ≤ 0.1 ppm/V | - |
| Working Voltage | 35 V (PR100) 75 V (PR135) 100 V (PR182) | - |
| Operating Temperature Range | - 55 °C to + 125 °C | - |
| Storage Temperature Range | - 55 °C to + 150 °C | - |
| Noise | ≤ - 30 dB | - |
| Thermal EMF | - | - |
| Shelf Life Stability: Absolute | - | - |
| Shelf Life Stability: Ratio | - | - |

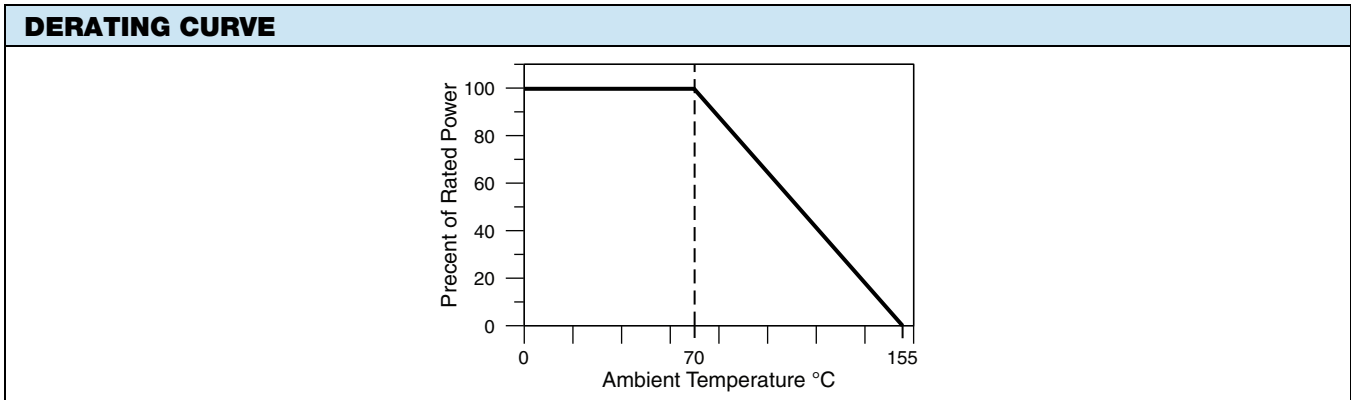


| DIMENSIONS in mils | | | | |
|--------------------|------------------|--------------------------|--------------------------|--------------------------|
| | DIMENSION | PR100 | PR135 | PR182 |
| | A | 64 ± 6 | 72 ± 6 | 118 ± 6 |
| | B | 17 | 20.3 | 23.6 |
| | C | 30 | 43.3 | 61.8 |
| | D | 10 | 10 | 10 |
| | E ⁽¹⁾ | $E = (N \times F) \pm 8$ | $E = (N \times F) \pm 8$ | $E = (N \times F) \pm 8$ |
| | F | 40 | 53.3 | 71.8 |
| | G | 15 | 15 | 15 |

Notes

- ± 2 mils unless specified
- (1) Where "N" = Number of resistors

| MECHANICAL SPECIFICATIONS | |
|---------------------------|----------------------------------|
| Substrate | Alumina 99.6 % |
| Technology | Thin Film |
| Film | Passivated nichrome |
| Terminations | Solderable gold (Au) over nickel |



PACKAGING

Waffle-pack or tape and reel

MARKING

On the primary package, printed information includes Vishay trademark series and model, schematic number of resistors, ohmic value, absolute tolerance, ratio tolerance, type of termination



| GLOBAL PART NUMBER INFORMATION | | | | | | | | | | | | | | | |
|---|------------------------|---------------------------------|---|---|--|--|--|---|---|---|---|---|---|---|---|
| New Global Part Numbering: PR100A41002BBGTS | | | | | | | | | | | | | | | |
| P | R | 1 | 0 | 0 | A | 4 | 1 | 0 | 0 | 2 | B | B | G | T | S |
| GLOBAL MODEL | SCHEMATICS | NUMBER OF RESISTORS | RESISTANCE | ABSOLUTE TOLERANCE | RATIO TOLERANCE | TERMINATION | PACKAGING | | | | | | | | |
| PR100 PR135 PR182 | A = Isolated resistors | 2 3 4 5 6 7 8 | First 3 digits are significant figures and the last digit specifies the number of zeros to follow. Example: 10R0 = 10 Ω 12R5 = 12.5 Ω 1000 = 100 Ω 1001 = 1000 Ω | B = 0.1 % C = 0.25 % D = 0.5 % F = 1 % G = 2 % J = 5 % K = 10 % | Q = 0.01 % ⁽¹⁾ P = 0.02 % ⁽²⁾ W = 0.05 % ⁽³⁾ B = 0.1 % C = 0.25 % D = 0.5 % F = 1 % | G = Wraparound Au over Ni termination e4 lead (Pb)-free RoHS compliant | TAPE AND REEL ⁽⁴⁾ T0 = 100 min., 100 mult T1 = 1000 min., 1000 mult T3 = 300 min., 300 mult T5 = 500 min., 500 mult TF = Full reel TS = 100 min., 1 mult TI = 100 min., 1 mult ⁽⁵⁾ TP = 100 min., 1 mult ⁽⁶⁾ WAFFLE WS = 100 min., 1 mult WS = 100 min., 1 mult ⁽⁵⁾ WS = 100 min., 1 mult ⁽⁶⁾ | | | | | | | | |
| Historical Part Number example: PR100A41002BBGT (for reference purposes only) | | | | | | | | | | | | | | | |
| PR100 | A | 4 | 1002 | B | B | G | T | | | | | | | | |
| SERIES | SCHEMATIC | NUMBER | RESISTANCE | ABSOLUTE TOLERANCE | RATIO TOLERANCE | TERMINATION | PACKAGING | | | | | | | | |

Notes

- (1) 10 kΩ, up to 4 resistors
- (2) > 1 kΩ, max. 4 resistors
- (3) > 100 Ω, up to 8 resistors
- (4) Please refer to below table for tape and reel availability
- (5) Item single lot date code
- (6) Package unit single lot date code

| TAPE AND REEL AVAILABILITY | | | |
|----------------------------|-----------|-----------|-----------|
| NUMBER OF RESISTORS | PR100 | PR135 | PR182 |
| 2 | Available | Available | Available |
| 3 | •• | Available | •• |
| 4 | Available | Available | Available |
| 5 | •• | Available | Available |
| 6 | Available | Available | •• |
| 7 | •• | Available | •• |
| 8 | Available | •• | •• |

Note

•• Not available, consult factory



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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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