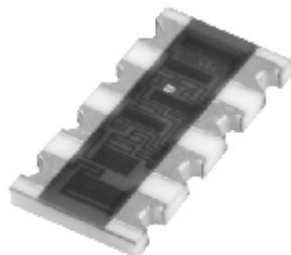


High Precision Resistor Arrays



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.

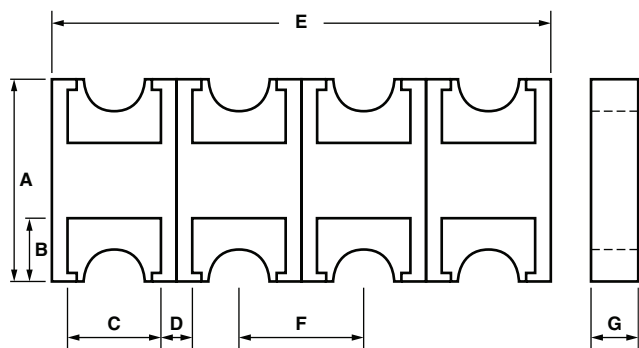
FEATURES

- 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 %



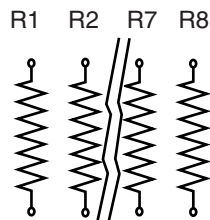
RoHS*
COMPLIANT

DIMENSIONS



Schematic A: Independent resistors

Electrical Diagram



Number of resistors: 2 to 8
R1 = R2 = R8

CHIP DIMENSIONS			
DIMENSIONS	PR100	PR135	PR182
	Mils	Mils	Mils
A	64 ± 6	72 ± 6	118 ± 6
B	17	20.3	23.6
C	30	43.3	61.8
D	20	20	20
E (1)	$E = (N \times F) \pm 8$	$E = (N \times F) \pm 8$	$E = (N \times F) \pm 8$
F	50	63.3	81.8
G	15	15	15

Notes

(1) Where "N" = number of resistors

- ± 2 mils unless specified

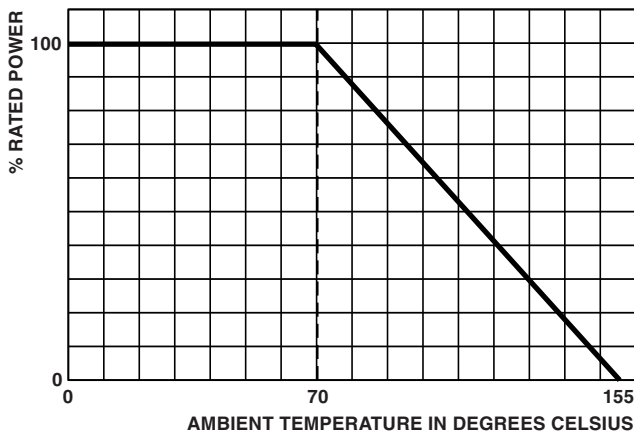
* Pb containing terminations are not RoHS compliant, exemptions may apply



STANDARD ELECTRICAL SPECIFICATIONS			
TEST		SPECIFICATIONS	CONDITIONS
Material		Passivated Nichrome	
Resistance Range:	PR 100	100 Ω to 200 kΩ	
	PR 135	100 Ω to 300 kΩ	
	PR 182	100 Ω to 1 MΩ	
Tolerance:	Absolute	± 10 % to ± 0.1 %	
	Ratio	0.1 %, 0.05 %, 0.02 %	
TCR:	Absolute	± 10 ppm/°C	- 55 °C to + 125 °C
	Ratio	2 ppm/°C	- 55 °C to + 125 °C
Power Rating:	PR 100	100 mW per resistor	at + 70 °C
	PR 135	125 mW per resistor	at + 70 °C
	PR 182	200 mW per resistor	at + 70 °C
Operating Temperature Range		- 55 °C to + 125 °C	
Noise		≤ - 30 dB	
Voltage Coefficient		≤ 0.1 ppm/V	
Working Voltage:	PR 100	35 V	
	PR 135	75 V	
	PR 182	100 V	

MECHANICAL SPECIFICATIONS	
Substrate	Alumina 99.6 %
Technology	Thin Film
Film	Passivated Nichrome
Terminations	Solderable Gold (Au) over Nickel

DERATING CURVE



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 zeroes to follow. Example: 1000 = 100 Ω 1001 = 1000 Ω	B = 0.1 % C = 0.25 % D = 0.5 % F = 1 % G = 2 % J = 5 % K = 10 %	P = 0.02 %* W = 0.05 %** B = 0.1 % C = 0.25 % D = 0.5 % F = 1 %	G = Wraparound Au over Ni termination e4 Epoxy Solderable	WS = WAFFLE 100 Min 1 Mult TS = TAPE and REEL 100 Min 1 Mult

* > 1 kΩ, max. 4 resistors
** > 100 Ω, up to 8 resistors

Historical Part Number example: PR100A41002BBGT (will continue to be accepted)

PR100	A	4	1002	B	B	G	T
SERIES	SCHEMATIC	NUMBER	RESISTANCE	ABSOLUTE TOLERANCE	RATIO TOLERANCE	TERMINATION	PACKAGING



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.