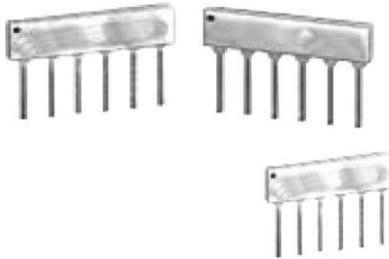
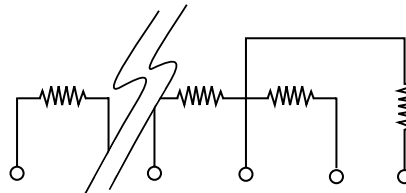


Ceramic Sandwich, Single-In-Line Resistor Networks (Low Profile 0.20 Custom)


Actual Size

Vishay Thin Film presents a design concept in precision thin film resistor networks. The essence of this new concept is the marriage of two principle design elements . . . a unique resistive film, having electrical properties comparable to those of wire-wound resistors, and a rugged, low cost, ceramic package and an almost limitless variety of sizes and configurations.

SCHEMATIC



Custom schematics available.
Please consult factory.

FEATURES

- Lead (Pb)-free available
- Gold-to-gold terminations. External leads are attached directly to gold pads on the ceramic substrate by thermo-compression bonding (no internal solder)
- Low profile (0.200 min.)
- Custom pin-outs available


RoHS*
COMPLIANT

TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	2
	ABS	RATIO
TOL	0.05	0.01

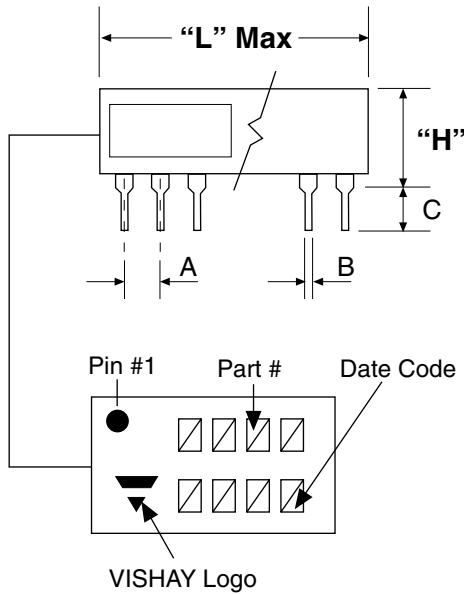
THROUGH HOLE NETWORKS

STANDARD ELECTRICAL SPECIFICATIONS			
TEST		SPECIFICATIONS	CONDITIONS
Material		Passivated Nichrome	Tantalum Nitride
Resistance Range		20 Ω to 2 MΩ total	20 Ω to 500 kΩ total
TCR:	Tracking	± 2 ppm/°C	± 5 ppm/°C
	Absolute	± 25 ppm/°C to ± 10 ppm/°C	± 100 ppm/°C to ± 50 ppm/°C
Tolerance:	Ratio	± 0.5 % to ± 0.01 %	± 0.5 % to ± 0.02 %
	Absolute	± 1.0 % to ± 0.05 %	± 1.0 % to ± 0.05 %
Power Rating:	Resistor	100 mW per element	100 mW per element
Stability:	Absolute	500 ppm	1000 ppm
	ΔR Ratio	150 ppm	200 ppm
Voltage Coefficient		< 0.1 ppm/V	0.1 ppm/V
Working Voltage		100 V	100 V
Operating Temperature Range		- 55 °C to + 125 °C	- 55 °C to + 125 °C
Storage Temperature Range		- 55 °C to + 125 °C	- 55 °C to + 125 °C
Noise		< - 30 dB	< - 30 dB
Thermal EMF		< 0.08 μV/°C	< 0.08 μV/°C
Shelf Life Stability:	Absolute	< 100 ppm	< 100 ppm
	ΔR Ratio	< 20 ppm	< 20 ppm

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

Vishay Thin Film Ceramic Sandwich, Single-In-Line Resistor Networks
(Low Profile 0.20 Custom)

DIMENSIONS AND IMPRINTING in inches and millimeters



DIMENSION	INCHES	MM
A	0.100 Typ. ¹⁾	2.54 Typ.
B	0.020 ± 0.002 Typ.	0.51 ± 0.05 Typ.
C	0.125 Min.	3.17 Min.
D	0.100 Max.	2.54 Max.
E	0.010	0.25

Note

1) Non-accum.

NUMBER OF PINS	LENGTH (L)		HEIGHT (H)	
	INCHES	MM	INCHES	MM
3	0.320	8.13	0.200 ²⁾	7.11 ²⁾
4	0.420	10.67		
5	0.520	13.21		
6	0.620	15.75		
7	0.720	18.25		
8	0.820	20.83		
9	0.920	23.37		
10	1.020	25.91		

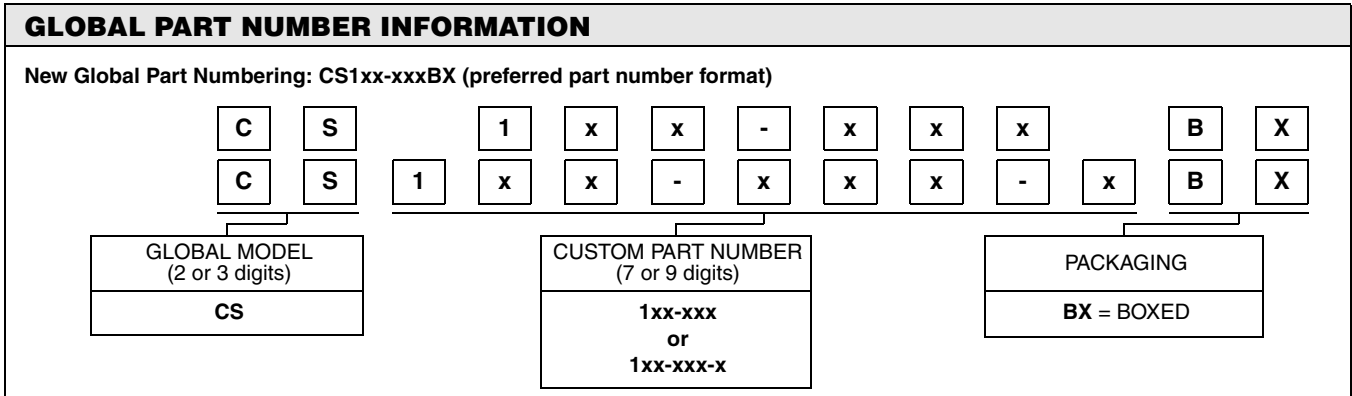
Note

2) Resistance value and schematic dependent. By occupying more than one 0.100 inch square, higher values are available

THROUGH HOLE NETWORKS

MECHANICAL SPECIFICATIONS	
Resistive Element	Passivated Nichrome or Tantalum Nitride
Substrate Material	Alumina
Body	Ceramic
Copper	Alloy #42
Plating	Gold
Marking Resistance to Solvents	per MIL-PRF-83401
Lead (Pb)-free Option	96.5 % Sn, 3.0 % Ag, 0.5 % Cu
Lead (Pb)-free Finish	Hot Solder Dip

ORDERING INFORMATION CHECK LIST	
Special requirements should be identified in advance, but as a minimum, you should have the following information ready.	
ELECTRICAL	MECHANICAL
<ol style="list-style-type: none"> Resistors, by value and tolerance Reference resistor(s) and matching of which resistors to which reference resistors Resistance by ratio Absolute temperature coefficient of resistivity Temperature tracking of subordinate resistors to reference resistor(s) Maximum operating voltage Resistor power ratings Operating temperature range 	<ol style="list-style-type: none"> Maximum allowable seated height (from PC board to top of network) Special marking concerns Schematic pin out of package Specify if lead (Pb)-free
For additional assistance refer to VISHAY Thin Film's Guide to Understanding Thin Film Precision. Resistor Networks or Application Engineering. All standard products may be ordered directly from VISHAY Thin Film.	



THROUGH HOLE NETWORKS



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