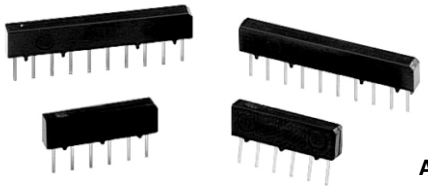
Molded, Commercial, Single In-Line Resistor Network (Standard)



Actual Size

Designed To Meet MIL-PRF-83401 Characteristic “V” and “H”

These resistor networks are available in 6, 8 and 10 pin styles in both standard and custom circuits. They incorporate VISHAY Thin Film’s patented Passivated Nichrome film to give superior performance on temperature coefficient of resistance, thermal stability, noise, voltage coefficient, power handling and resistance stability. The leads are attached to the metallized alumina substrates by Thermo-Compression bonding. The body is molded thermoset plastic with gold plated copper alloy leads. This product will outperform all of the requirements of characteristic “V” and “H” of MIL-PRF-83401.

FEATURES

- Lead (Pb)-free available
- Rugged molded case 6, 8, 10 pins
- Thin Film element
- Excellent TCR characteristics (± 25 ppm/°C)
- Gold to gold terminations (no internal solder)
- Exceptional stability over time and temperature (500 ppm at + 70 °C at 2000 hours)
- Internally passivated elements
- Compatible with automatic insertion equipment
- Standard circuit designs

Pb-free Available

RoHS* COMPLIANT

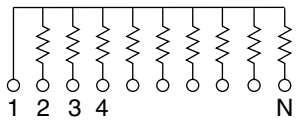
TYPICAL PERFORMANCE

	ABS	TRACKING
TCR	25	2
	ABS	RATIO
TOL	0.1	0.05

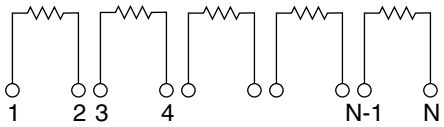
THROUGH HOLE

SCHEMATIC

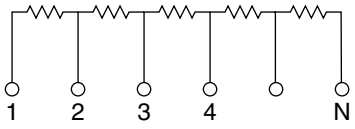
Schematic 01



Schematic 03



Schematic 06



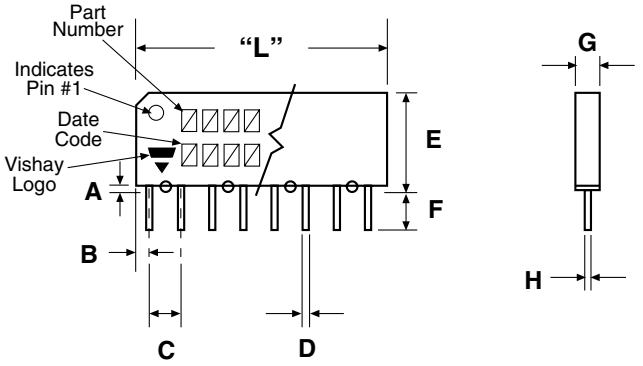
STANDARD ELECTRICAL SPECIFICATIONS

TEST		SPECIFICATIONS	CONDITIONS
Material		Passivated Nichrome	
Resistance Range		100 Ω to 200 kΩ	
TCR:	Tracking	± 2 ppm/°C (typical less 1 ppm/°C equal values)	- 55 °C to + 125 °C
	Absolute	± 25 ppm/°C standard	- 55 °C to + 125 °C
Tolerance:	Ratio	± 0.05 % to ± 0.1 % to R1	+ 25 °C
	Absolute	± 0.1 % to ± 1.0 %	+ 25 °C
Power Rating:	Resistor	100 mW per element typical at + 25 °C	Max. at + 70 °C
	Package	0.5 W	Max. at + 70 °C
Stability:	ΔR Absolute	500 ppm	2000 h at + 70 °C
	ΔR Ratio	150 ppm	2000 h at + 70 °C
Voltage Coefficient		< 0.1 ppm/V	
Working Voltage		100 V	
Operating Temperature Range		- 55 °C to + 125 °C	
Storage Temperature Range		- 55 °C to + 125 °C	
Noise		< - 30 dB	
Thermal EMF		< 0.08 µV/°C	
Shelf Life Stability:	Absolute	< 100 ppm	1 year at + 25 °C
	Ratio	20 ppm	1 year at + 25 °C

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

For technical questions, contact: thin-film@vishay.com

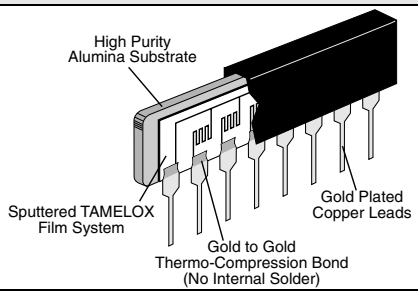
DIMENSIONS AND IMPRINTING in inches and millimeters



"L" DIMENSION	INCHES	MM
A	0.035	0.89
B	0.040	1.02
C	0.100 ± 0.005 non-accum.	2.54 ± 0.13
D	0.019 ± 0.006 typical	0.48 ± 0.15
E	0.187 ± 0.010	4.75 ± 0.25
F	0.135	3.43
G	0.095	2.41
H	0.012 ± 0.004	0.31 ± 0.10

NUMBER OF PINS	6	8	10
"L" Dimensions	0.583 ± 0.015	0.783 ± 0.015	0.983 ± 0.015
(mm)	(14.81 ± 0.38)	(19.89 ± 0.38)	(24.97 ± 0.38)

CONSTRUCTION



MECHANICAL SPECIFICATIONS

Resistive Element	Passivated Nichrome
Substrate Material	Alumina
Body Molded Epoxy	Terminals Copper Alloy
Plating	Nickel/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

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: TSP6011002BUF (preferred part number format)

T	S	P	6	0	1		1	0	0	2	B	U	F	
T	S	P	S	1	0	0	1|	1	0	0	2	C	U	F

GLOBAL MODEL (3 or 4 digits)	PIN COUNT (1 or 2 digits)	SCHEMATICS	TCR CHARACTERISTICS	RESISTANCE	TOLERANCE AND RATIO TOLERANCE	PACKAGING
TSP (Tin Lead) **TSPS** (Lead (Pb)-free) (e1)	**6** **8** **10**	**01** = 5, 7 or 9 resistors with Pin 1 common **03** = 3, 4 or 5 isolated resistors **06** = 5, 7 or 9 series connected	***R** = ± 25 ppm/°C **H** = ± 50 ppm/°C **K** = ± 100 ppm/°C ***01** Schematic greater than 250 Ω only	First 3 digits are significant figures and the last digit specifies the number of zeroes to follow. e.g: 1001 = 1K 1002 = 10K	Absolute / Ratio ***A** = 0.1 % / 0.05 % **B** = 0.1 % / 0.1 % **C** = 0.25 % / 0.1 % **D** = 0.5 % / 0.1 % **F** = 1.0 % / 0.5 % ***Z** = 0.1 % / 0.025 % * Tol. available on 1K and up only. R1 is reference resistor.	**UF** = Tubed

Historical Part Number example: TSP803R1001F (will continue to be accepted)

TSP	8	03	R	1001	F
SERIES	PINS	SCHEMATIC	TCR CHARACTERISTIC	RESISTANCE	TOLERANCE AND RATIO TOLERANCE

THROUGH HOLE

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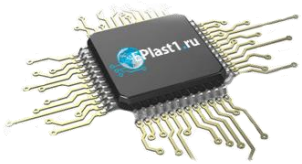
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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