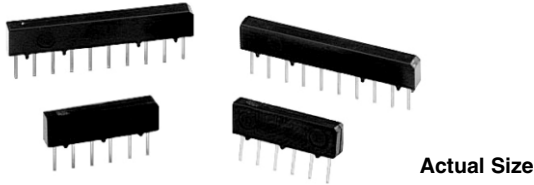


Molded, Commercial, Single In-Line Resistor Network (Standard)



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

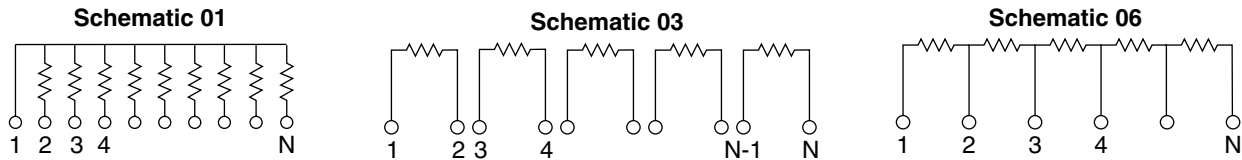
- Lead (Pb)-free available
- Rugged molded case 6, 8, 10 pins
- Thin Film element
- Excellent TCR characteristics (± 25 ppm/ $^{\circ}$ C)
- Gold to gold terminations (no internal solder)
- Exceptional stability over time and temperature (500 ppm at + 70 $^{\circ}$ C at 2000 hours)
- Internally passivated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



TYPICAL PERFORMANCE

| | ABS | TRACKING |
|-----|-----|----------|
| TCR | 25 | 2 |
| | ABS | RATIO |
| TOL | 0.1 | 0.05 |

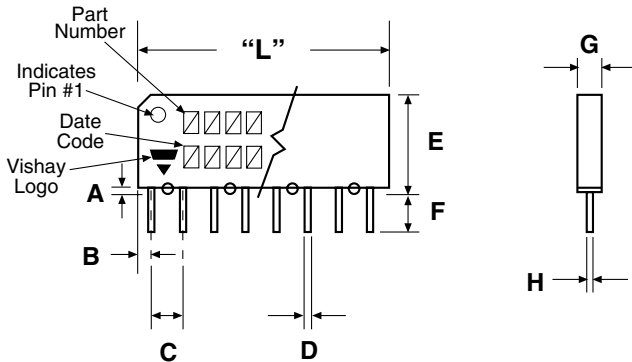
SCHEMATIC



THROUGH HOLE

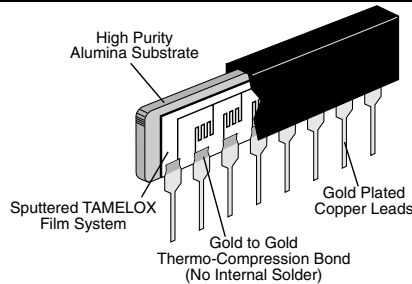
| STANDARD ELECTRICAL SPECIFICATIONS | | |
|------------------------------------|---|---|
| TEST | SPECIFICATIONS | CONDITIONS |
| Material | Passivated Nichrome | |
| Resistance Range | 100 Ω to 200 k Ω | |
| TCR: | Tracking | ± 2 ppm/ $^{\circ}$ C (typical less 1 ppm/ $^{\circ}$ C equal values) |
| | Absolute | ± 25 ppm/ $^{\circ}$ C standard |
| Tolerance: | Ratio | ± 0.05 % to ± 0.1 % to R1 |
| | Absolute | ± 0.1 % to ± 1.0 % |
| Power Rating: | Resistor | 100 mW per element typical at + 25 $^{\circ}$ C |
| | Package | 0.5 W |
| Stability: | ΔR Absolute | 500 ppm |
| | ΔR Ratio | 150 ppm |
| Voltage Coefficient | < 0.1 ppm/V | |
| Working Voltage | 100 V | |
| Operating Temperature Range | - 55 $^{\circ}$ C to + 125 $^{\circ}$ C | |
| Storage Temperature Range | - 55 $^{\circ}$ C to + 125 $^{\circ}$ C | |
| Noise | < - 30 dB | |
| Thermal EMF | < 0.08 μ V/ $^{\circ}$ C | |
| Shelf Life Stability: | Absolute | < 100 ppm |
| | Ratio | 20 ppm |
| | | 1 year at + 25 $^{\circ}$ C |
| | | 1 year at + 25 $^{\circ}$ C |

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

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 |

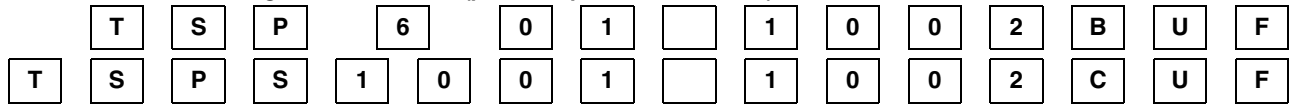
| NUMBER OF PINS | 6 | 8 | 10 |
|----------------|----------------|----------------|----------------|
| "L" Dimensions | 0.583 ± 0.015 | 0.783 ± 0.015 | 0.983 ± 0.015 |
| (mm) | (14.81 ± 0.38) | (19.89 ± 0.38) | (24.97 ± 0.38) |

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)



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

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 |



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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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JONHON

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