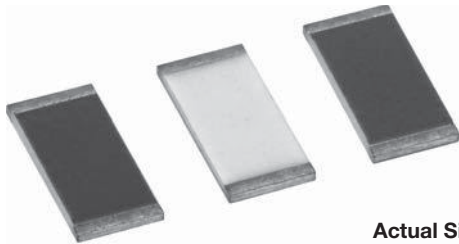


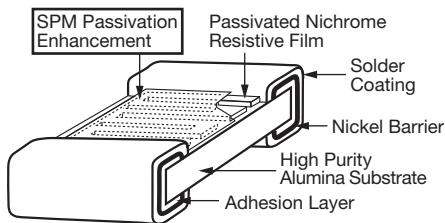
Precision Low TCR Thin Film Resistor, Surface Mount Chip, ± 5 ppm/°C TCR, 0.01 % Tolerance



Actual Size 0603

Vishay's proven precision thin film wraparound resistors will meet your exact requirements. These resistors are ideal for precision applications requiring low noise, stability, ultra low temperature coefficient of resistance, and low voltage coefficient. The chip resistors are available in any resistance ohmic value in the range specified below.

CONSTRUCTION



FEATURES

- TCR of ± 5 ppm/°C standard
- Tolerances to ± 0.01 %
- Anti corrosion resistant film with (SPM) special passivation method
- Stable film and performance characteristics ($\Delta R \pm 0.04\%$ at 70 °C, 10 000 h)
- Non-standard resistance values available
- Very low noise and voltage coefficient (< - 30 dB, 0.1 ppm/V)
- UL 94 V-0 flame resistant
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



Note

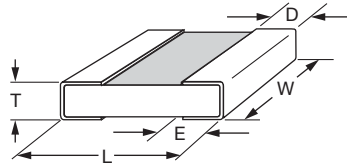
* Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

TYPICAL PERFORMANCE

| | ABSOLUTE |
|------|----------|
| TCR | 5 |
| TOL. | 0.01 |

| STANDARD ELECTRICAL SPECIFICATIONS | | |
|------------------------------------|-----------------------|---------------------|
| TEST | SPECIFICATIONS | CONDITIONS |
| Material | Passivated nichrome | - |
| Resistance Range | 250 Ω to 775 kΩ | - |
| TCR: Absolute | ± 5 ppm/°C | - 55 °C to + 125 °C |
| Tolerance: Absolute | ± 0.1 % to ± 0.01 % | + 25 °C |
| Stability: Absolute | $\Delta R \pm 0.02\%$ | 2000 h at 70 °C |
| Stability: Ratio | - | - |
| Voltage Coefficient | ± 0.1 ppm/V (typical) | - |
| Working Voltage | 75 V to 200 V | - |
| Operating Temperature Range | - 55 °C to + 125 °C | - |
| Storage Temperature Range | - 55 °C to + 150 °C | - |
| Noise | < - 35 dB (typical) | - |
| Shelf Life Stability: Absolute | $\Delta R \pm 0.01\%$ | 1 year at + 25 °C |

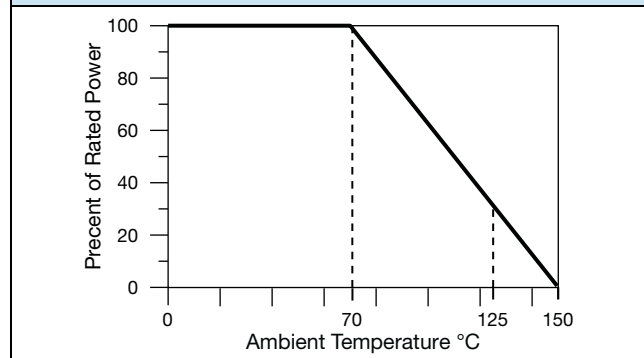
| COMPONENT RATINGS | | | |
|-------------------|-------------------|---------------------|----------------------|
| CASE SIZE | POWER RATING (mW) | WORKING VOLTAGE (V) | RESISTANCE RANGE (Ω) |
| 0603 | 150 | 75 | 250 to 130K |
| 0805 | 250 | 100 | 250 to 260K |
| 1206 | 400 | 200 | 250 to 775K |

DIMENSIONS in inches


| CASE SIZE | TERM | L | W | T | D | E |
|-----------|------|---------------|---------------|----------------|-----------------------|-----------------------|
| 0603 | B | 0.064 ± 0.006 | 0.032 ± 0.005 | 0.020 max. | 0.012 ± 0.005 | 0.015 ± 0.005 |
| 0805 | B | 0.080 ± 0.006 | 0.050 ± 0.005 | 0.015 to 0.033 | 0.016 ± 0.008 | 0.015 ± 0.005 |
| 1206 | B | 0.126 ± 0.008 | 0.063 ± 0.005 | 0.015 to 0.033 | 0.020 + 0.005/- 0.010 | 0.020 + 0.005/- 0.010 |

ENVIRONMENTAL TESTS - TYPICAL

| ENVIRONMENTAL TEST | 10 kΩ ΔR ± (%) | 100 kΩ ΔR ± (%) |
|-------------------------------|----------------|-----------------|
| Thermal Shock | 0.02 | 0.02 |
| Short Time Overload | 0.01 | 0.01 |
| Low Temperature Operation | 0.01 | 0.01 |
| Resistance to Solder Heat | 0.01 | 0.01 |
| Moisture Resistance | 0.02 | 0.02 |
| High Temperature Exposure | 0.02 | 0.02 |
| Load Life (10 000 h, + 70 °C) | 0.04 | 0.04 |
| TCR | ± 5 ppm/°C | ± 5 ppm/°C |

DERATING CURVE

GLOBAL PART NUMBER INFORMATION

| GLOBAL MODEL | CASE SIZE | TCR CHARACTERISTIC | RESISTANCE | TOLERANCE | TERMINATION | PACKAGING |
|--------------|----------------------|--------------------|---|--|--|---|
| PLT | 0603 0805 1206 | Z = ± 5 ppm/°C | The first 3 digits are significant figures and the last digit specifies the number of zeros to follow. "R" designates the decimal point. Example: 1001 = 1 kΩ 2500 = 250 Ω Special values with more than 4 significant figures, use a R for value below 1 kΩ and a K for values greater than 1 kΩ to signify a decimal point. 982R6 = 982.6 Ω 532R41 = 532.41 Ω | L = ± 0.01 % ⁽²⁾ Q = ± 0.02 % A = ± 0.05 % B = ± 0.1 % | B = Wraparound Sn/Pb solder w/Ni barrier (63 % Sn/37 % Pb w/ nickel barrier) S = Wraparound lead (Pb)-free solder 96.5 % Sn/3.0 % Ag/ 0.5 % Cu RoHS compliant - e1 | WS = WAFFLE PACK TAPE AND REEL T0 = 100 min., 100 mult T1 = 1000 min., 1000 mult ⁽¹⁾ T3 = 300 min., 300 mult T5 = 500 min., 500 mult TF = Full reel TS = 100 min., 1 mult |

Notes

- (1) Preferred packaging code
- (2) L = ± 0.01 % tolerance available only for resistance value greater than 250 Ω



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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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