



Precision Ultra-Low-TCR Thin Film Resistor, Surface-Mount Chip, ± 2 ppm/ $^{\circ}\text{C}$ TCR, 0.01 % Tolerance



KEY BENEFITS

- Low TCR to ± 2 ppm/ $^{\circ}\text{C}$ with ± 0.01 % tolerance
- Case sizes from 0603 to 2512
- Wide resistance range from 100 Ω to 3 M Ω

APPLICATIONS

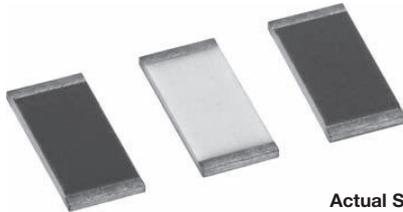
- Test and instrumentation
- Weight scales
- High-precision guidance systems for military / aerospace

RESOURCES

- Datasheet: PLTU - www.vishay.com/doc?60131
- Collateral/Video: www.vishay.com/xxx
- For technical questions contact thinfilm@vishay.com



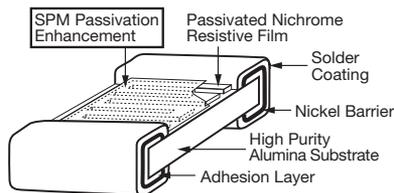
Precision Ultra-Low-TCR Thin Film Resistor, Surface-Mount Chip, $\pm 2 \text{ ppm}/^\circ\text{C}$ TCR, 0.01 % Tolerance



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 $\pm 2 \text{ ppm}/^\circ\text{C}$ standard
- Tolerances to $\pm 0.01 \%$
- 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 ($< -30 \text{ dB}$, 0.1 ppm/V)
- UL 94 V-0 flame resistant
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



Available
RoHS*
Available
HALOGEN FREE

Note

* This datasheet provides information about parts that are RoHS-compliant and / or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information / tables in this datasheet for details.

TYPICAL PERFORMANCE

	ABSOLUTE
TCR	2
TOL.	0.01

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Resistance Range	100 Ω to 3 M Ω	-
TCR: Absolute	$\pm 2 \text{ ppm}/^\circ\text{C}$	-55°C to $+125^\circ\text{C}$
Tolerance: Absolute	$\pm 0.1 \%$ to $\pm 0.01 \%$	$+25^\circ\text{C}$
Stability: Absolute	$\Delta R \pm 0.02 \%$	2000 h at 70°C
Stability: Ratio	-	-
Voltage Coefficient	$\pm 0.1 \text{ ppm/V}$ (typical)	-
Working Voltage	75 V to 200 V	-
Operating Temperature Range	-55°C to $+125^\circ\text{C}$	-
Storage Temperature Range	-55°C to $+155^\circ\text{C}$	-
Noise	$< -35 \text{ dB}$ (typical)	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01 \%$	1 year at $+25^\circ\text{C}$

COMPONENT RATINGS

CASE SIZE	POWER RATING (mW)	WORKING VOLTAGE (V)	RESISTANCE RANGE (Ω)
0603	150	75	100 to 130K
0805	250	100	100 to 260K
1206	400	200	100 to 775K
2010	800	200	150 to 2M
2512	1000	200	200 to 3M

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