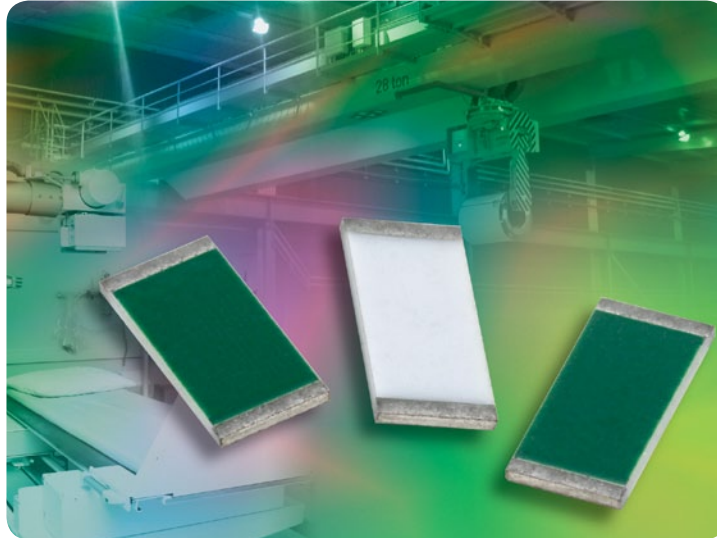


## Precision Low TCR Thin Film Chip Resistors



### KEY BENEFITS

- TCR of  $\pm 5$  ppm/ $^{\circ}\text{C}$  (over  $- 55$   $^{\circ}\text{C}$  to  $+ 125$   $^{\circ}\text{C}$ )
- Tolerances to  $\pm 0.01$  %
- Anti-corrosion resistant film with special passivation method (SPM)
- Stable film and performance characteristics: 500 ppm at  $70$   $^{\circ}\text{C}$ , 10 000 h
- Non-standard resistance values available
- Lead (Pb)-free or lead terminations available
- Very low noise and voltage coefficient:  $< - 30$  dB, 0.1 ppm/V
- UL 94 V-0 flame resistant
- Compliant to RoHS directive 2002/95/EC

### APPLICATIONS

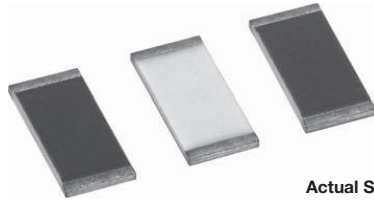
- Industrial
- Military
- Aerospace
- Medical
- Telecommunications

### RESOURCES

- Datasheet: PLT Series - <http://www.vishay.com/doc?60030>
- For technical questions contact [thinfilm@vishay.com](mailto:thinfilm@vishay.com)



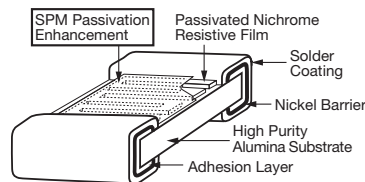
### Precision Low TCR Thin Film Chip Resistors



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  $\pm 5$  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  $^{\circ}\text{C}$ , 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
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition



RoHS\*  
COMPLIANT  
HALOGEN  
FREE

#### Note

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

#### TYPICAL PERFORMANCE

	ABSOLUTE
TCR	5
TOL.	0.01

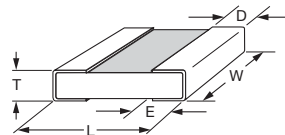
#### STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Resistance Range	100 $\Omega$ to 775 k $\Omega$	-
TCR: Absolute	$\pm 5$ ppm/ $^{\circ}\text{C}$	- 55 $^{\circ}\text{C}$ 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 $^{\circ}\text{C}$
Stability: Ratio	-	-
Voltage Coefficient	$\pm 0.1$ ppm/V (typical)	-
Working Voltage	75 V to 200 V	-
Operating Temperature Range	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$	-
Storage Temperature Range	- 55 $^{\circ}\text{C}$ to + 150 $^{\circ}\text{C}$	-
Noise	< - 35 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 ( $\Omega$ )
0603	150	75	100 to 130K
0805	250	100	100 to 260K
1206	400	200	100 to 775K

#### DIMENSIONS in inches



Revision 02-Aug-11

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