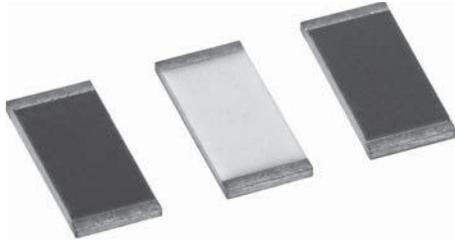


Precision Low TCR High Temperature Thin Film Resistor, Surface Mount Chip, ± 5 ppm/ $^{\circ}\text{C}$ TCR, 0.02 % Tolerance



Vishay's proven precision thin film wraparound resistors will meet your exact requirements. These resistors are ideal for use in oil industry precision applications requiring low noise, long term stability under high temperature, 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.

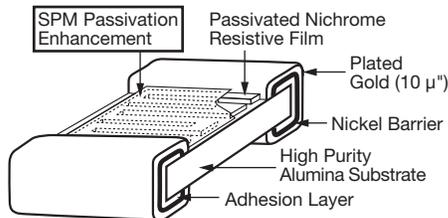
FEATURES

- - 55 $^{\circ}\text{C}$ to 215 $^{\circ}\text{C}$ operating temperature range
- TCR of ± 5 ppm/ $^{\circ}\text{C}$ standard
- Tolerances to ± 0.02 %
- Anti corrosion resistant film with (SPM) special passivation method
- Stable film and performance characteristics
- 0.5 % max. at 2000 h, 215 $^{\circ}\text{C}$, 25 % rated power
- 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

CONSTRUCTION



TYPICAL PERFORMANCE

	ABSOLUTE
TCR	5
TOL.	0.02

STANDARD ELECTRICAL SPECIFICATIONS

TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Resistance Range	250 Ω to 50 k Ω	-
TCR: Absolute	± 5 ppm/ $^{\circ}\text{C}$	- 55 $^{\circ}\text{C}$ to + 125 $^{\circ}\text{C}$
Tolerance: Absolute	± 0.1 % to ± 0.02 %	+ 25 $^{\circ}\text{C}$
Stability: Absolute	$\Delta R \pm 0.5$ %	2000 h at 215 $^{\circ}\text{C}$, 25 % rated power
Stability: Ratio	-	-
Voltage Coefficient	± 0.1 ppm/V (typical)	-
Working Voltage	75 V to 200 V	-
Operating Temperature Range	- 55 $^{\circ}\text{C}$ to + 215 $^{\circ}\text{C}$	-
Storage Temperature Range	- 55 $^{\circ}\text{C}$ to + 215 $^{\circ}\text{C}$	-
Noise	< - 35 dB (typical)	-
Shelf Life Stability: Absolute	$\Delta R \pm 0.01$ %	1 year at + 25 $^{\circ}\text{C}$

COMPONENT RATINGS

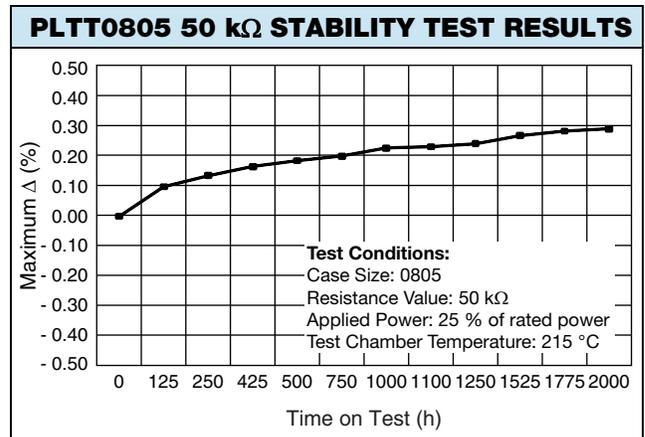
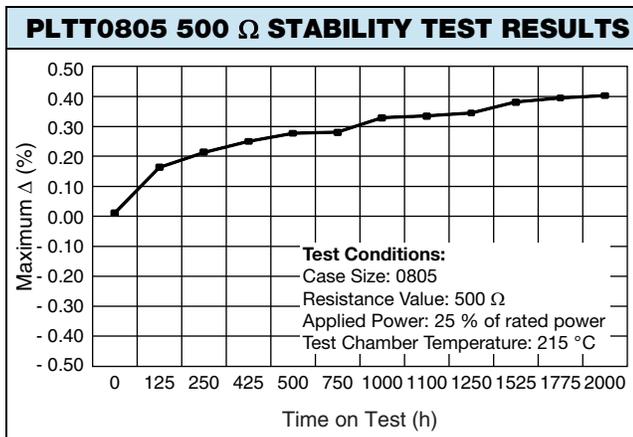
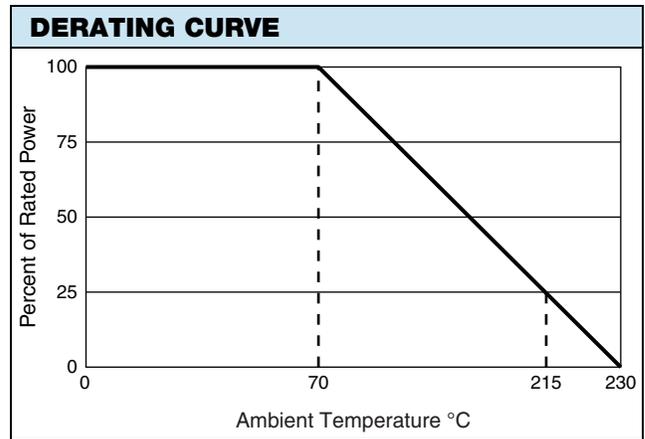
CASE SIZE	POWER RATING (mW)	WORKING VOLTAGE (V)	RESISTANCE RANGE (Ω)
0805	250 at 70 $^{\circ}\text{C}$	100	250 to 50K

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

Vishay Thin Film Precision Low TCR High Temperature Thin Film Resistor, Surface Mount Chip, $\pm 5 \text{ ppm}/^\circ\text{C}$ TCR, 0.02 % Tolerance

DIMENSIONS in inches						
CASE SIZE	TERM	L	W	T	D	E
0805	G	0.080 ± 0.006	0.050 ± 0.005	0.015 to 0.033	0.016 ± 0.008	0.015 ± 0.005

ENVIRONMENTAL TESTS - TYPICAL		
ENVIRONMENTAL TEST	10 k Ω $\Delta R \pm$ (%)	100 k Ω $\Delta R \pm$ (%)
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 (25 % Power, 2000 h, + 215 °C)	0.5	0.5
TCR	$\pm 5 \text{ ppm}/^\circ\text{C}$	$\pm 5 \text{ ppm}/^\circ\text{C}$



Note

- Performance obtained with following mounting conditions
 PCB: Polyimide IPC-7831A STD land patterns
 Solder paste: PbSnAg (93.5/5/1.5)



Precision Low TCR High Temperature Thin Film Resistor, Vishay Thin Film Surface Mount Chip, ± 5 ppm/ $^{\circ}$ C TCR, 0.02 % Tolerance

GLOBAL PART NUMBER INFORMATION																
P	L	T	T	0	8	0	5	Z	1	0	0	1	Q	G	T	1
GLOBAL MODEL	CASE SIZE	TCR CHARACTERISTIC		RESISTANCE	TOLERANCE	TERMINATION		PACKAGING								
PLTT	0805	Z = ± 5 ppm/ $^{\circ}$ C		<p>The first 3 digits are significant figures and the last digit specifies the number of zeros to follow. "R" designates the decimal point.</p> <p>Example: 1001 = 1 kΩ 2500 = 250 Ω</p> <p>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.</p> <p>982R6 = 982.6 Ω 532R41 = 532.41 Ω</p>	<p>Q = ± 0.02 % A = ± 0.05 % B = ± 0.1 %</p>	<p>G = Wraparound Gold over Ni barrier (10 μ" min. Au)</p>		<p>WS = WAFFLE WI = 100 min./1mult (item single lot date code) WP = 100 min./1mult (package unit single lot date code)</p> <p>TAPE AND REEL T1 = 1000 min., 100 mult T5 = 500 min., 500 mult TF = Full reel TS = 100 min., 1 mult TI = 100 min./1mult (item single lot date code) TP = 100 min., 1 mult (package unit single lot date code)</p>								



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