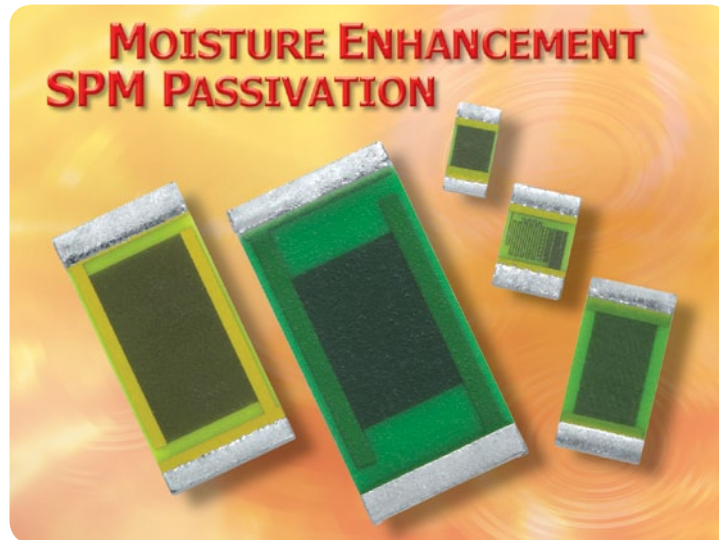


Thin Film Precision Surface-Mount Wraparound Chip Resistors



KEY BENEFITS

- Wide selection of case sizes
- Special Passivation Method (SPM) moisture resistance
- Tolerances to $\pm 0.02\%$
- TCR of ± 25 ppm/ $^{\circ}\text{C}$ (standard) to ± 10 ppm/ $^{\circ}\text{C}$
- Non-standard values available
- Solderable or wire-and-epoxy-bondable

APPLICATIONS

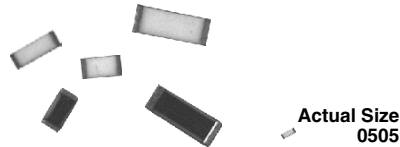
- Precision reference
- Low-noise instrumentation
- ATE industrial precision voltage dividers

RESOURCES

- Datasheet: P-NS - <http://www.vishay.com/doc?60023>
- For technical questions contact thinfilm@vishay.com

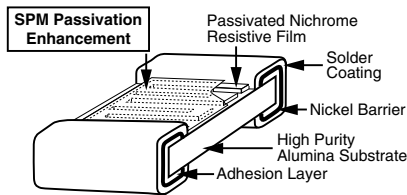


Thin Film Precision Surface-Mount Wraparound Chip Resistors


 Actual Size
0505

For applications requiring low noise, stability, low temperature coefficient of resistance, and low voltage coefficient, all Vishay's proven precision thin film wraparound resistors will meet your exact requirements. Manufactured with the same material and processes as QPL and manufactured in a QPL facility.

CONSTRUCTION



FEATURES

- Moisture resistant (SPM) special passivation method
- Non-standard values available
- Pre-tinned terminations over nickel barrier (gold available)
- Very low noise and voltage coefficient (< - 35 dB, 0.1 ppm/V)
- Non-inductive
- Laser-trimmed tolerances to 0.02 %
- In-lot tracking less than 5 ppm/°C
- Epoxy bondable termination available
- Sulfur resistant (per ASTM B809-95 humid vapor test)
- Compliant to RoHS Directive 2002/95/EC



Notes

- * Pb containing terminations are not RoHS compliant, exemptions may apply
- ** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

TYPICAL PERFORMANCE

	ABSOLUTE
TCR	25
TOL.	0.1

STANDARD ELECTRICAL SPECIFICATIONS		
TEST	SPECIFICATIONS	CONDITIONS
Material	Passivated nichrome	-
Resistance Range	10 Ω to 6.19 MΩ	-
TCR: Absolute	± 10 ppm/°C to 100 ppm/°C	- 55 °C to + 125 °C
Tolerance: Absolute	± 0.02 % to ± 5 %	+ 25 °C
Stability: Absolute	ΔR ± 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	ΔR ± 0.01 %	1 year at + 25 °C

COMPONENT RATINGS				
CASE SIZE ⁽¹⁾	POWER RATING (mW)	WORKING VOLTAGE (V)	RESISTANCE RANGE (Ω)	
			≥ 0.1 %	< 0.1 %
0402	50	75	25 to 100K	250 to 100K
0502	100	75	20 to 150K	250 to 150K
0505	150	75	20 to 301K	250 to 301K
0603	150	75	10 to 261K	250 to 261K
0705	250	100	10 to 475K	250 to 475K
0805	250	100	10 to 475K	250 to 475K
1005	250	100	10 to 649K	250 to 649K
1010	500	150	50 to 1M	250 to 1M
1206	400	200	10 to 1.5M ⁽²⁾	250 to 1M
1505	400	150	10 to 1M	250 to 1M
2208	800	150	10 to 3.16M ⁽²⁾	250 to 1M
2010	800	200	10 to 4.02M ⁽²⁾	250 to 1M
2512	1000	200	10 to 6.19M ⁽²⁾	250 to 1M

Notes

- ⁽¹⁾ 0705 and 0805 are the same (only use 0805 when ordering)
- ⁽²⁾ Values > 1M best TCR ± 25 ppm/°C

Revision 18-Nov-11

Resistors - Special Passivation Method