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Extended PTN Series of Precision Surface-Mount Thin Film Chip Resistors

Product Benefits:

- Features a moisture-resistant tantalum nitride resistive film technology
- Low absolute TCR of ± 25 ppm/ $^{\circ}$ C
- Laser-trimmed tolerances down to ± 0.1 %
- Wide temperature range of -55 $^{\circ}$ C to $+125$ $^{\circ}$ C
- Offered in 13 case sizes from 0402 to 2512
- Wide range of resistance values from 10Ω to $3 \text{ M}\Omega$, with non-standard values available
- Features high-purity ceramic substrate
- Wraparound resistance of $< 10 \text{ m}\Omega$
- Power ratings from 50 mW to 2 W
- Low noise of < -25 dB
- Low voltage coefficients of 0.1 ppm/V
- Voltage ratings from 75 V to 200 V
- Available with lead (Pb)-free or lead terminations
- RoHS compliant, halogen free, and conform to Vishay Green standards
- 100 % visually inspected per MIL-PRF-55342
- Sulfur resistant according to the ASTM B809-95 humid vapor test



Market Applications:

- Low-noise, high-precision control systems for military, aerospace, telecommunications, and industrial applications

Buy It Now:

Check distributor stock on the Vishay website:

<http://www.vishay.com/search?query=ptn2512&searchChoice=part&type=inv>

The News:

Vishay Intertechnology's PTN Series Precision Thin Film Chip Resistors Now Offer Power Rating to 2 W in 2512 Case Size

Vishay Intertechnology, Inc. (NYSE: VSH) announces that it has extended the power rating of PTN series precision surface-mount thin film chip resistors in the 2512 case size to 2 W . Built using a self-passivated, moisture-resistant tantalum nitride resistive film technology, the Vishay Dale Thin Film devices combine their high power rating with a low absolute TCR of ± 25 ppm/ $^{\circ}$ C and laser-trimmed tolerances down to ± 0.1 % over a wide temperature range of -55 $^{\circ}$ C to $+125$ $^{\circ}$ C.



- Assures a moisture-resistance level that exceeds MIL-PRF-55342 limits
- Ideal for applications where moisture during operation or long-term storage may be a concern
- Wraparound terminations offer an adhesion layer covered with a leach-resistant nickel barrier and solder coating
- Epoxy-bondable terminations available upon request

Key Specifications:

Case size	Power rating (mW)	Working voltage (V)	Resistance range (Ω)
0402	50	75	20 to 51.1 k
0502	100	75	20 to 65 k
0505	150	75	20 to 130 k
0603	150	75	10 to 130 k
0705	200	100	10 to 301 k
0805	200	100	10 to 301 k
1005	250	100	10 to 360 k
1010	500	150	50 to 600 k
1206	400	200	10 to 1 M
1505	400	150	10 to 1 M
2208	750	150	10 to 1.75 M
2010	800	200	10 to 2 M
2512	2000	200	10 to 3 M

The Perspective:

The tantalum nitride resistive film of the PTN resistor assures a moisture-resistance level that exceeds MIL-PRF-55342 limits. This makes the devices ideal for use in applications where moisture during operation or long-term storage may be a concern. In addition to higher power ratings to 2 W in the 2512 case size, the PTN series provides low absolute TCR of ± 25 ppm/ $^{\circ}$ C, a wide range of resistance values from 10 Ω to 3 M Ω , and laser-trimmed tolerances down to ± 0.1 %

Availability: Samples and production quantities of the enhanced PTN series devices in the 2512 case size are available now, with lead times of eight to 10 weeks for large orders.

To access the product datasheet on the Vishay Web site, go to <http://www.vishay.com/doc?60026> (PTN)

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