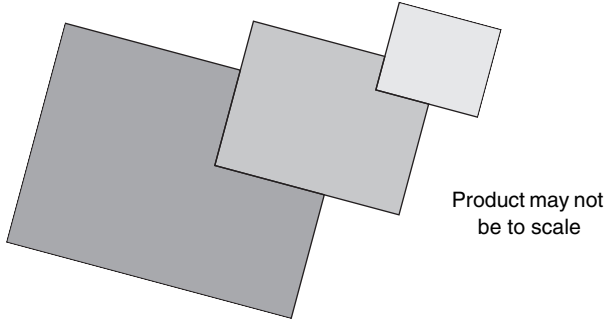


Metalized Plates



Vishay Electro-Films (EFI) offers the widest variety of metalization options, substrate materials, surface finishes and through hole metalization with rapid high volume delivery.

Unique, proprietary sputtering systems provide high volume and uniform deposition for up to three different metalization layers on one or both sides without breaking vacuum. This insures excellent adhesion to the surfaces and on the metalized thru-hole walls.

Volume plating with the conditions precisely controlled for each substrate insures uniform plating thickness from substrate to substrate as well as across individual substrates.

FEATURES

- Metalization on 1, 2, or 6 surfaces
- Excellent adhesion to all materials
- Sizes to 4 inches x 4 inches
- Metalized through holes with excellent adhesion
- Polished or “As Fired” surfaces
- High volume
- Rapid delivery

SUBSTRATE MATERIALS

Alumina, 99.6 %

- Thickness - 0.010 inches, 0.015 inches, 0.025 inches
- Surface finish - as fired, 2 - 4 microinches Polished, < 2 microinches
- Loss factor: 0.0004 typical at 25 °C - 1 MHz
- Dielectric constant: 9.8 typical at 25 °C - 10 GHz

Beryllium Oxide, Aluminum Nitride

- For high thermal conductivity requirements
- Metalized, patterned, with resistors

Quartz

- For low dielectric constant applications
- Very low noise amplifiers
- Consistently high adhesion levels

METALIZATION

The Vishay EFI sputtering systems employ long life (15 year), large area targets that provide consistent resistance, TCR and long term stability characteristics from plate-to-plate and run-to-run. You can be sure that all parts shipped for decades will have the same characteristics as the qualification run.

- Sputtered resistance material, 10 Ω /square to 200 Ω /square
- High stability nichrome.
- Moisture resistant tantalum nitride.
- Sputtered adhesion or barrier metal layers: NiCr, Ti, TiW, Ta2N, Mo, Cu, Ni, Pd.
- Plated layers to 1000 microinches: Ni, Cu, Au.

Ordering Information; Consult Application Engineer



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.