

THICK film technology from THE resistor people

Ohmite Manufacturing, a global leader in resistive technology, has been in business since 1925 offering a variety of thick film, foil, wirewound and carbon/ceramic composition resistive solutions in many packaging options. Ohmite's expertise is imbedded in engineered solutions geared towards the customer's application needs.

Ohmite's core technology for customized thick film solutions—those needs beyond the component parts found in electronic catalogs—consists of screening a variety of conductive and non conductive thick film materials on alumina, metal alloy or plastic substrates in many different shapes and forms.

The growth in medical monitoring, high tolerance gauges for fuel control, diagnostics, and detection of environmental contamination, has generated significant innovation in thick film conductors for use as electrodes. Ohmite has the ability to screen resistive material on almost any size or any form of substrate.

Features

- High-voltage pulse applications
- Heat-sinkable
- QS9000 Approved Facility
- Clean Room Environment — Approaching class 10000
- Over 500,000 sq. inches Capacity for Printing and Firing per day
- Double Sided Print Capability
- Via Printing
- Multilayer Capability
- All substrates are processed in sheet form only in order to maintain print registration to tight tolerances.

Specifications

Substrates: 96% Alumina, FR4, others available on request
Coating: Silicone and epoxy, molding
Thickness: 0.025" and 0.040" standard, others available on request
Size: 0805 to 4"x4"

Conductors

Line Width /
Material Line Spacing
Gold 0.004"
Palladium Silver 0.005"
Platinum Silver 0.005"
Silver 0.008"

Packaging

- Bulk Packaging
- Tape & Reel
- Tube Packaging
- Tray Packaging
- Others available on request

Process

Printing: All printing is carried out on either manually fed screen printers or automated screen printers. Substrates are registered using centre chucking or corner alignment or specific fixturing.

Firing: Cermet based conductors which are printed on Alumina substrates are fired at temperatures ranging from 600°C to 950°C. The actual firing temperature depends on the material. Glass passivating materials are fired at temperatures ranging from 510°C to 600°C. All glasses used are Lead free and Cadmium free.

Curing: Curing of polymer based materials is done either in conveyor furnaces or batch ovens with accurate temperature control.

Testing: In-process inspection in keeping with their established sound practices of process control of screen printing operations. Final inspection and testing of finished electrodes is subject to negotiation with the customer.

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