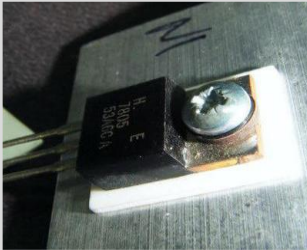


**Features and Benefit**

- Very hard
- Excellent wear resistance
- Light weight
- Wide applications
- Insulator with high break-down voltage
- High mechanical strength
- Excellent thermal stability



**Product Code and Descriptions:**

For example: OI-3000-TO-247  
 OI-3000 is 3000 series  
 TO-247 is the size :0.635mmT\*17mm\*22mm

The OI-3000 thermally conductive ceramic insulator is mainly made of Al<sub>2</sub>O<sub>3</sub>, formed under calcinations in higher than 1000°C with molten rare material oxide. Al<sub>2</sub>O<sub>3</sub> ceramics with high alumina content are so-called special ceramics. It usually possesses a compact structure which gives special performance to the material. The oxygen ions in Al<sub>2</sub>O<sub>3</sub> ceramic material construct in a H.C.P structure, whilst aluminium ions possess 2/3 of total space within the octahedral structure. This is same as the α-Al<sub>2</sub>O<sub>3</sub> structure, so it has a high melting point, very hard, and has excellent wear resistance. It is designed to be RoHS compliant and halogen-free, providing extra reassurance in applications where hazardous substances are forbidden.

**Typical Application**

- Thermal insulation of high power equipment High voltage
- MOS IC pipe
- IGBT chip
- High frequency power supply
- Mechanical equipment
- Strong current, high voltage, high temperature (<1600°C) applications

**Standard Configurations**

- TO -247: 0.635mmT\*17mm\*22mm
- TO-220: 1mmT\*13mm\*19mm
- TO-3 P: 1mmT\*20mm\*25mm
- TO-264: 1mmT\*22mm\*28mm

**Typical Properties**

Part NO	OI-3000 Series	Test Standard
Composition	Alumina (≥96%)	—
Colour	White	—
Density/ g.cm <sup>-1</sup>	≥3.7	GB/T2413
Dielectric Strength/ kv/mm	≥17	GB/T 5593-2015
Flexural Strength/ Mpa	≥350	GB/T 6569-2006
Volume resistivity/ Ω.cm	≥10 <sup>14</sup>	GB/T 5594.5-2015
Thermal expansivity/ 10 <sup>-6</sup> /°C	6.5-8.0	GB/T5594.3-2015
Dielectric constant/ MHz	9-10	GB/T 5594.4-2015
Surface Roughness/ Ra	≤0.75	—
Thermal conductivity/ W/m-k	≥24	ISO 22007-2
Storage period/ Months	12	—

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