FACT SHEET

ICT-NF-TR-HR

ICT -NF-TR-HR thermally conductive so-called "box-shaped" caps for many common transistor types. The heat conducting caps are made on the basis of noncombustible silicone rubber and heat-conducting ceramic formulated materials. The product groups dispose a very high electrically insulation properties and very good thermal conductivity up to 1.7 W/mK.

2 SILICONE CAPS, TAPES AND TUBES

DESCRIPTION

ICT-TR, HR are thermally conductive so-called "box-shaped" caps for many common transistor types.

The thermal caps dispose a very good thermal conductivity due to the special formulation and filling of the silicone with ceramic fillers. This considerably reduces the total contact resistance be and ensures an optimal thermal path for a very good thermal performance.

The manufacturing of the cap is occurred in a so-called co-molding process, in which case the two cap halves are pressed in one mold and then final welded.

Due to the surface property, the material adjusts itself very well up to the contact surfaces, which considerably reduces the thermal contact - and the thermal total transition resistance in result will get remarkable improved.

This all-round insulation of the components provides, depending on the material thicknesses, an optimum protection against electrical voltage breakdowns while at the same time reducing the overall thermal transfer resistance to the thermal contact such as e.g. heat sinks or housings.

The ICT-TR and HR Caps Series has a very long life and furthermore a high reliability related. Therefore, the product group is ideal for applications such as for attachment of MOSFET, IGBT on heat sinks and housings.

TYPICAL PROPERTIES

Operating temperature	**from -40 to 150 °C**
Thermally conductive	**No**
Thermal conductivity	**1.7 W/m*K**
Density	**2.4 g/cm³**
Flammability (UL 94)	**94 V-0**
Color	**Greenish Grey Brown Grey**
Material	**silicone Rubber Aufbau**
Dielectric breakdown voltage	**15 kV/mm**
Dielectric strength	**10 11 12 13 14 15**
Electrically conductive	**No**

FEATURES

- High thermal conductivity 1.2 up to 1.7 W/mK
- Minimum heat transfer resistance 0.39 up to 0.76 K °/W
- soft material surface, adapts very well and minimises the R_{th} contact
- Good electric dielectric Strength > 10 kV up to 15 kV/AC (0.45|0,90 mm)
- Good Mechanical stability
- No residue after removal (maintenance, inspection)
- Clean, fast and process-safe assembly
- No thermal compound required
- Non-combustible according to UL 94 V0 (file.-No. E58126)

DELIVERY FORMS / APPLICATIONS

DELIVERY FORMS

Availible (wall) thickness 0,30 mm, 0,45 mm, 0,50 mm & 0,90 mm

Different sizes (see chart; Dimensions)

APPLICATIONS

- Thermal connection of e.g.
- MOSFETs and IGBTs
- Diodes and rectifier
- Inverters
- Power supplies / facilities
- motor controls
- Automotive applications
- solar technology
- Customized special shapes available and deliver upon request

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