

# SILICONE CAP TCP-C-SI

all around dielectric

TCP-C-SI is a thermally conductive silicone cap for an optimised thermal coupling between electronic packages and heat sinks which provides for a reliable electrical all-around insulation. Through the specific formulation and filling with thermally conductive ceramic particles a good thermal conductivity is reached. Its conformal surface structure guarantees a very good compliance to the contact surfaces. Thus the total thermal resistance is minimised.



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## PROPERTIES

- ☐ Very good surface compliance
- ☐ High thermal contact
- ☐ Extraordinary chemical resistance and longterm stability
- ☐ Residue-free removal after use

## AVAILABILITY

- ☐ Thicknesses: 0.5 mm and 0.8 mm
- ☐ Different sizes available

## APPLICATION EXAMPLES

Thermal link of:

- ☐ MOSFETs or IGBTs
  - ☐ Power diodes or AC/DC converters
- For use in Switch mode power supplies / Motor control units / Automotive engine management systems / UPS units / Solar systems

Property	Unit	TCP-C250-SI	TCP-C280-SI
<b>Material</b>		Ceramic filled silicone	Ceramic filled silicone
Colour		Grey	Grey
Thickness	mm	0.50	0.80
Tensile Strength <sup>1</sup>	kpsi	0.5	0.5
Tear Strength	kN/m	6.0	6.0
UL Flammability	UL 94	V0	V0
RoHS Conformity	2002/95/EC	Yes	Yes
<b>Thermal</b>			
Resistance @ 30 PSI	°C-inch <sup>2</sup> /W	0.48	0.58
Conductivity	W/mK	0.8	0.8
Operating Temperature Range	°C	- 40 to + 155	- 40 to + 155
<b>Electrical</b>			
Breakdown Voltage <sup>2</sup>	kV AC	4	10
Volume Resistivity	Ohm - cm	$2.6 \times 10^{15}$	$2.6 \times 10^{15}$
Dielectric Constant	@ 1 MHz	4.85	4.85

Test Methods: <sup>1</sup> ASTM D 412, <sup>2</sup> ASTM D 149. All data without warranty and subject to change. Please contact us for further data and information.

Sizes in mm	A	B	C	D
TCP-C150-SI	16.0 ± 0.1	11.5 ± 0.1	5.9 ± 0.1	0.5 ± 0.1
TCP-C250-SI	21.5 ± 0.1	11.5 ± 0.1	5.9 ± 0.1	0.5 ± 0.1
TCP-C280-SI	21.8 ± 0.1	12.1 ± 0.1	6.5 ± 0.1	0.8 ± 0.1
TCP-C450-SI	28.5 ± 0.1	17.5 ± 0.1	5.9 ± 0.1	0.5 ± 0.1
TCP-C480-SI	28.8 ± 0.1	18.2 ± 0.1	6.6 ± 0.1	0.8 ± 0.1

