

# TG-CJ-Li-30.5-30.5-6-PF Ceramic Heatsink

Version 1.220917

## Ceramic Heatsink

T-Global's range of ceramic heatsinks have been designed from a proprietary blend of engineering ceramics to offer superior thermal management for the most demanding of applications. Compared to aluminium, ceramics confer additional benefits such as electrically isolating, resistant to corrosion, low weight and does not act like an antenna. The addition of a pre-applied thermal tape further reduces the manufacturing complexity when compared to aluminum heatsinks.

## Features

- Large contact area
- Low weight
- High breakdown voltage
- Excellent heat spreader
- Custom shapes possible

## Applications

LED, M/B, P/S, LCD, TV, Notebook, PC, PC Telecom Device, Wireless Hub, Power transistor, Power module, CPU, Chip IC

## Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

Property	Main Component		Technical Ceramic
	Property	Unit	
Physical Property	Density	g/cm <sup>3</sup>	3.66
	Water Absorption	%	0.002
	Sinter Temperature	°C	1700
	Acid Resistance	mg/cm <sup>3</sup>	≤0.2
	Alkali	mg/cm <sup>3</sup>	≤0.2
Mechanical Property	Mohs Hardness	HV	9
	Bend Strength	Mpa	≥ 610
	Compression Intensity	Mpa	≥ 620
Thermal Property	Maximum Working Temperature	°C	1400
	Thermal Expansion Coefficient	(1×10 <sup>-6</sup> ) mm/°C	7.8-8.3
	Thermal Shock Resistance	T (°C)	200
	Thermal Conductivity	W/m.k.	40-51
Electrical Property	Resisting Rate of Volume	Ω °C	1016
	DC Breakdown Strength	KV/mm	15.2-16.7
	Insulation Breakdown Intensity	KV/mm	18
	Dielectric Constant (1MHz)	(E)	10
	Dielectric Dissipation	(tg o)	0.4*10 <sup>-3</sup>

## Part Number Information

TG-CJ-Li-30.5-30.5-6-PF

Product	Length	Width	Depth	Adhesive
TG-CJ-Li-30.5-30.5-6-PF	30.5	30.5	6	1 Sided Tape

\* All measurements in mm

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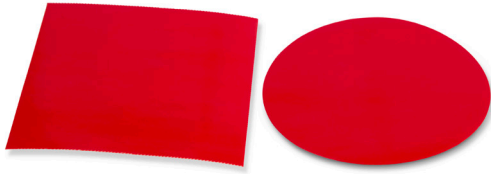
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# Li98 Thermal Tape

Version 1.200917



## Thermal Tape

Li98 thermal tapes are double-sided thermal interface tapes and provide exceptional bonding properties between electronic components and heat sinks, eliminating the need for mechanical fasteners. Li98 can be offered in various formats such as sheets, rolls and die cut parts depending on the applications and have proven reliability under various mechanical, thermal, and environmental stresses.

## Features

- Good adhesion (Acrylic PSA)
- Great reliability
- Cost effective with great performance
- Easy to assemble

## Applications

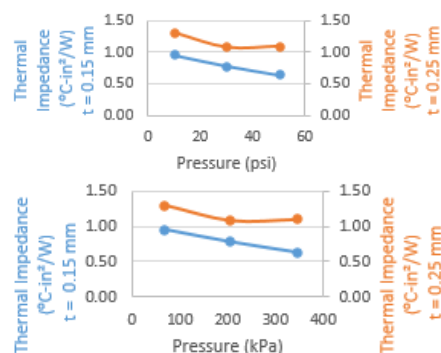
Electronic components: IC, CPU, MOS  
 LED, M/B, P/S, Heat Sink  
 LCD, TV, Notebook PC, PC Telecom Device, Wireless Hub, etc.  
 DDR II Module, DVD Applications, Hand-set applications, etc.

## Properties

- ✓ REACH Compliant
- ✓ ROHS Compliant

Property	Li98		Unit	Tolerance	Test Method
Colour	Green	Red	-	-	Visual
Thickness	0.15	0.25	mm	-	ASTM D374
	0.0059	0.00984	inch	-	ASTM D374
Thermal Conductivity	0.95	0.95	W/mK	±0.10%	ASTM D5470
Continuous Working Temperature	-30 to 120		°C	-	-
Short Time Using Temperature	200		°C	-	-
Density	1.85		g/cm <sup>3</sup>	±1.3	ASTM D792
Tensile Strength	200	400	psi	-	ASTM D412
Glass Transition Temperature	-30		°C	-	-
Initial Tack	10	8	cm	-	PSTC-6
Lap Shear Strength	61	55	N/cm <sup>2</sup>	-	ASTM D1002
Die Shear Strength 25 °C	120	109	N/cm <sup>2</sup>	±0.2	-
Die Shear Strength 80 °C	69	68	N/cm <sup>2</sup>	-	-
Holding Power 1000g 25 °C	>10000		min	-	PSTC-7
Holding Power 1000g 80 °C	>10000		min	-	PSTC-7
90° Peeling Strength	>10	>12	N/in	-	ASTM D3330
Dielectric Breakdown Voltage (AC)	2	3	kV/mm	±0.10%	ASTM D149
Dielectric Breakdown Voltage (DC)	3	4	kV/mm	±0.10%	ASTM D149
Reinforcement Carrier	Fiberglass Mesh		-	-	-

## Thermal Impedance vs Pressure vs Deflection



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# Li98 Thermal Tape

## Part Number Information

Li98

Product	Length	Width	Thickness	Adhesive
Li98	50mm	20	0.15	-

\* All measurements in mm

## Standard Weights & Dimensional Tolerance

Size	Thickness (mm)	0.15 Weight (gr)	0.25 Weight (gr)
	100x100	2.78	4.63
150x150	6.24	10.41	
300x300	24.98	41.63	
320x320	28.42	47.36	

\* All measurements in weights are in gr

\*\* All sizes are in mm

Die-Cut Thickness Tolerances	Thickness (mm)	Tolerance (mm)
	0.3	±0.03
	0.5	±0.05
	0.8	±0.08
	1.0	±0.1
	1.2	±0.12
	1.5	±0.15
	2.0	±0.2
	2.5 - 3.5	±0.25
	4.0 - 4.5	±0.3
	5.0	±0.35
	6.0 - 8.0	±0.4
	9.0	±0.45
10.0	±0.5	
>10.0	±0.5	

## Data

Digi-Key Part	T-Global Part
1168-1715-ND	LP0001/01-Li98-0.15
1168-1908-ND	LP0007/01-Li98-0.25
1168-1867-ND	LP0003/01-Li98-0.25
1168-1845-ND	TG-CPCB1-Li98-0.15
1168-1843-ND	TG-CPCB2-Li98-0.15
1168-1841-ND	TG-CPCB3-Li98-0.15
1168-1847-ND	LP0001/01-Li98-0.25
1168-1857-ND	LP0002/01-Li98-0.25
1168-1907-ND	LP0007/01-Li98-0.15
1168-1763-ND	LP0003/01-Li98-0.15
1168-1718-ND	LP0002/01-Li98-0.15
1168-1766-ND	LP0004/01-Li98-0.15
1168-1769-ND	LP0005/01-Li98-0.15
1168-1877-ND	LP0004/01-Li98-0.25
1168-1772-ND	LP0006/01-Li98-0.15
1168-1887-ND	LP0005/01-Li98-0.25
1168-1897-ND	LP0006/01-Li98-0.25

Digi-Key Part	T-Global Part	Thickness	Material	Adhesive	Backing Carrier	Thermal Conductivity
1168-1715-ND	LP0001/01-Li98-0.15	0.0007" (0.178mm)	Acrylic Elastomer	Both sides	Fiberglass	2.0 W/m-K
1168-1908-ND	LP0007/01-Li98-0.25					
1168-1867-ND	LP0003/01-Li98-0.25					
1168-1845-ND	TG-CPCB1-Li98-0.15					
1168-1843-ND	TG-CPCB2-Li98-0.15					
1168-1841-ND	TG-CPCB3-Li98-0.15					

\* Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.

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