

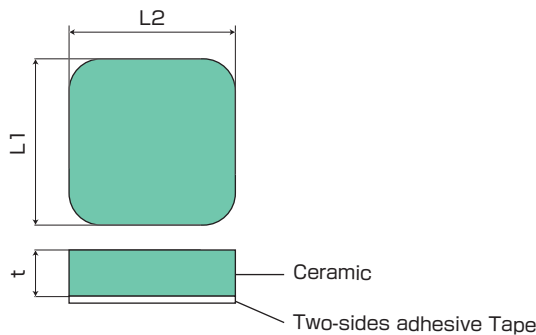
CERACOLD / CECD



Porous ceramic-based heat sink for excellent insulation

Features

- Have better thermal emissivity and heat dissipation is enhanced by a larger surface area of porous ceramic material compared to aluminum material.
- Lighter than aluminum heat sinks by approx.. 30%
- No electromagnetic radiation emitted from the heat sink unlike metal heat sinks.



(Unit:mm)

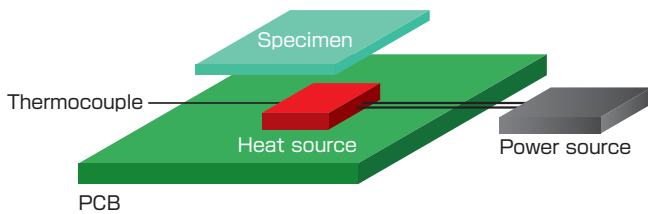
Part Number	Thickness:t	L1	L2
CECD-1.5-020020T	1.5	20	20
CECD-3.0-020020T	3.0	20	20
CECD-3.0-040040T	3.0	40	40

(The values below are not guaranteed.)

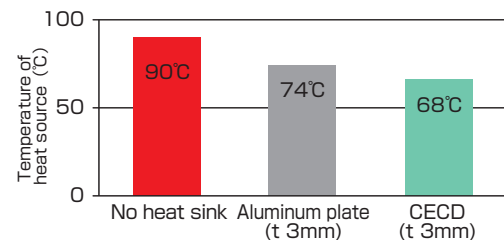
Test type	Unit	Standard	CECD
Thermal Conductivity	W/m·K	JIS R 2616 (Hot-wire method)	11.5
Color	—	—	Green
Specific Gravity	—	JIS Z 8807	1.95
Volume Resistivity	$\Omega \cdot \text{cm}$	JIS K 6911 compliant	$\geq 10^9$
Operating temp	$^{\circ}\text{C}$	—	-40~125

Heat dissipation efficiency

Heat conductive characteristics



Comparison of Heat Sink Efficiency



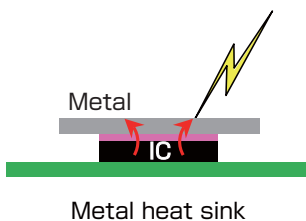
<Test conditions>

Heat source : □10mm(1.6W)

Specimen dimensions: □20mm(t3mm)

EMI noise issues with metal heat sink

Stray capacitance occurs between the IC chip (noise source) and the heat sink (not grounded), which becomes an antenna and emits radiated noise.



Since ceramic is an insulator, it is not affected by electrostatic coupling and does not act as an antenna to radiate noise.

