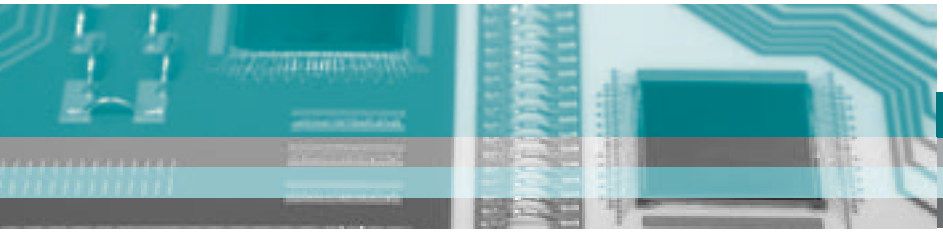

HEAT SINKS

Heat Sinks made of Compound Materials or Metal Matrix Composite (MMC)

Characteristics	Unit	AlSiC	HivolTM (C)	CuW	CuMo
Material Composite *	%	Al(25-30)SiC(70-75)	Al(12)Si(88)	Cu(15)W	Cu(30)Mo
Coefficient of Linear Thermal Expansion @ 20-100°C	10-6/K	6-7	6.8	7.3	7.5
Thermal Conductivity @ 20°C	W/mK	180-210	226	198	195
Specific Heat Capacity @ 100°C	J/gK	0.8-0.9	0.75	0.174	0.301
Density	g/cm3	3-3.1	3.03	16.4	9.7
Flatness/Camber	mm/mm	0.1/100	0.1/100	0.1/100	0.1/100
Young's Modulus @ 20°C	GPa	185-235	230	310	225
Flexural Strength	MPa	275-315	279-335	280	170
Thickness *	mm	1-20	1-10	1-4	1-3
Hole diameter *	mm	1-10	1-10	1-10	1-10
General Tolerances (other on request)	mm	+/- 0.2	+/- 0.1	+/- 0.1	+/- 0.1
Surface solderable, bondable	-	Ni+Au	Ni+Au	Ni+Au	Ni+Au
Electrical Resistivity	µOhmcm	5	5.4	4	3.7

* other materials, compositions and dimensions on request

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