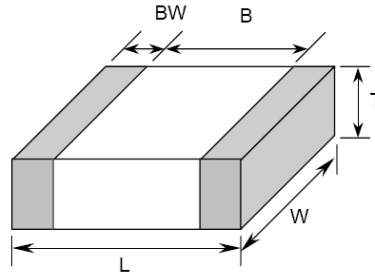


MULTILAYER CERAMIC CHIP CAPACITOR DATASHEET



HolyStone Part Number C1206X225K101TX Description 1206, X7R, 2.2 μ F 100Vdc SuperTerm

1) Dimensions



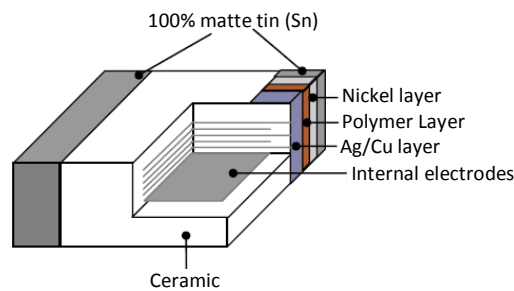
Unit: mm

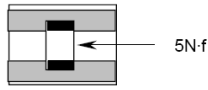
Type	Length (L)	Width (W)	Thickness (T)	Creepage (B) min	Bandwidth (BW)
1206	3.20 \pm 0.30	1.60 \pm 0.20	1.60 \pm 0.20	1.50	0.30

2) Electrical Characteristics

Dielectric Classification	EIA Class II X7R
Temperature Range	-55°C to +125°C, \pm15% no DC bias
Nominal Capacitance, measured at 1Vrms at 1KHz	2.2μF: after correction to 1000hrs to allow for ageing
Capacitance Tolerance	\pm10%
Rated Voltage	100Vdc
Tangent of loss angle (tan δ)	\leq2.5%
Insulation Resistance	10GΩ or 500/C Ω whichever is smaller. Measured at rated voltage. Charge time 60\pm5Sec. Charge/discharge current limited to 50mAmps
Dielectric Strength	200% of rated voltage. Charge/discharge current limited to 50mAmps
Ageing	1.0% per decade of time typical

3) Termination (Superterm)



Solderability	Termination area shall be at least 90% covered with solder.	Solder temperature 245 \pm 5°C. Immersion time 5 \pm 0.5Secs.
Resistance to soldering heat	Solder dip at 260 \pm 5°C for 10 \pm 1 Sec	Capacitance change: X7R \pm 10% of initial value. Tan δ and I.R to meet specified initial value.
Termination adhesion Strength	 <p>A 5N.f pull force shall be applied for 10 \pm 1 sec</p>	No indication of peeling shall occur

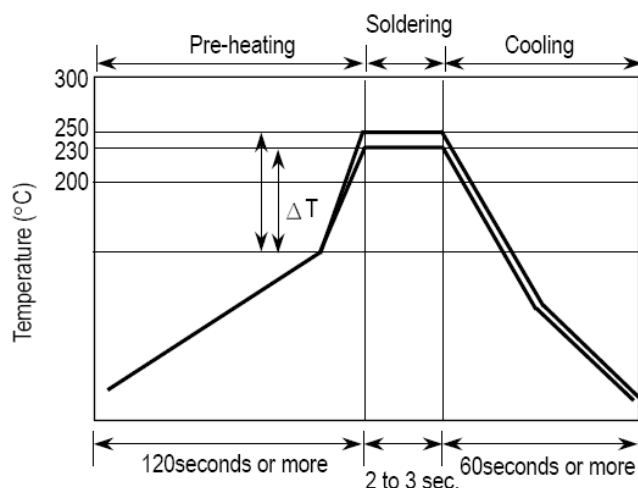
This product is fully compliant with the European Directive 2002/95/EC and 2011/65/EU (RoHS).

4) Soldering

Wave Soldering

Most components are wave soldered with solder at 230°C to 250°C. Adequate care must be taken to prevent inducing thermal cracks into the body of the ceramic capacitor.

Recommended Wave solder temperature profile



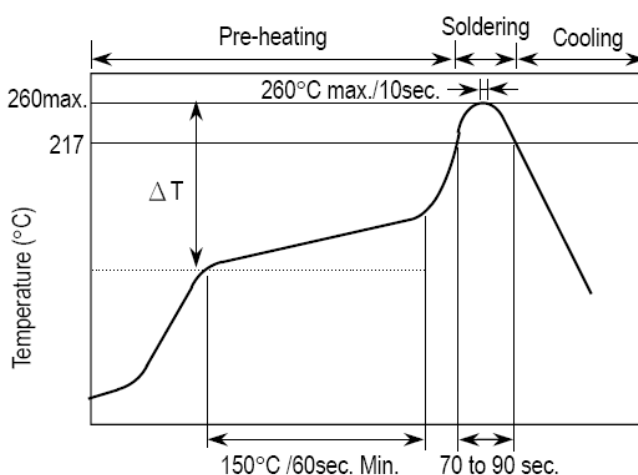
Soldering method	Change in Temp (°C)
1206 and smaller	$\Delta T \leq 130^{\circ}\text{C}$
1210 and greater	$\Delta T \leq 80^{\circ}\text{C}$

Natural cooling using air is recommended. If components are dipped into solvent for cleaning, the temperature difference (ΔT) between the components and the solvent should be less than 100°C

Reflow Soldering

The pre-heat temperature rise should be kept to a maximum of 3°/second.

Recommended reflow profile for Lead-Free soldering temperature Profile (MIL-STD-202G#210F)



Soldering method	Change in Temp (°C)
1206 and smaller	$\Delta T \leq 190^{\circ}\text{C}$
1210 and greater	$\Delta T \leq 130^{\circ}\text{C}$

Natural cooling using air is recommended. If components are dipped into solvent for cleaning, the temperature difference (ΔT) between the components and the solvent should be less than 100°C

5) Storage

Components should be stored in their original packaging with the storage temperature between 5°C and 40°C and with the humidity less than 75%. The shelf life is 6 months.

For additional data please refer to the HolyStone website (www.HolyStonecaps.com) or catalogue.