

# Kingtronics®

# HKT

## High Voltage Multilayer Chip Ceramic Capacitor

### APPLICATIONS

HKT SMD is widely used in Analog & Digital Modems, LAN/WAN Interface, Lighting Ballast Circuits, Voltage Multipliers, DC-DC Converter, Back-lighting Inverters.

### Product Part Number Identification

1. HKT multilayer chip capacitor

**HKT**   **1206**   **X7R**   **102**   **K**   **202**   **P**   **T**   **R**  
 Part No   a   b   c   d   e   f   g   h

- a. Size Code (Inches).
- b. T.C. Characteristics: NPO(COG), X7R
- c. Nominal Capacitance(pF):0R6=0.6,1R6=1.6,102=10X10<sup>2</sup>,105=10X10<sup>5</sup>
- d. Tolerance:  
 A=±0.1pF, B=±0.2pF, C=±0.25pF, D=±0.5pF, F=±1%  
 G=±2%, J=±5%, K=±10%, M=±20%, Z=+80%/-20%
- e. Rated Voltage:  
 500=50V, 501=500V, 102=1000V, 502=5000V
- f. Termination: P=Standard
- g. Packaging Style: N=Bulk, T=Tape & Reel.
- h. Pb: R=RoHS



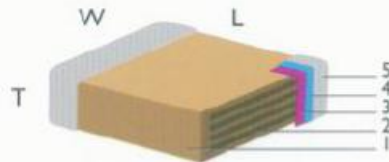
### FEATURES

- Small size
- Excellent Break down voltage, low DF
- RoHS compliant
- Suit to re-flow soldering, wave soldering, hand soldering

### Structure and Dimension (Unit: Inches)

#### Structure

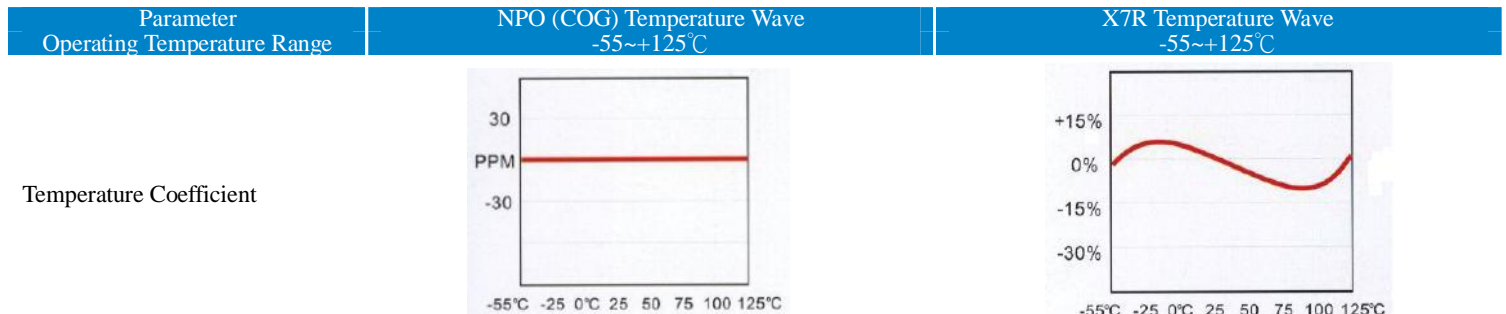
No	Name
1	Ceramic Dielectric
2	Inner Electrode
3	Silver Layer
4	Nickel Layer
5	Tin Layer



#### Dimensions (Unit: mm)

Size	Length	Width	Thickness
0603	1.52 ± 0.25	0.76 ± 0.25	1.01 max
0805	2.00 ± 0.25	1.25 ± 0.25	1.45 max
1206	3.20 ± 0.30	1.60 ± 0.30	1.90 max
1210	3.20 ± 0.40	2.50 ± 0.30	2.80 max
1808	4.50 ± 0.40	2.00 ± 0.25	2.80 max
1812	4.50 ± 0.40	3.20 ± 0.40	3.10 max
2220	5.70 ± 0.40	5.00 ± 0.40	3.00 max
2225	5.70 ± 0.50	6.30 ± 0.50	6.20 max

### Coefficient



Dissipation Factor	DF≤0.15%	DF≤2.50%	
Aging	None	≤2.5% decade hour	
Insulation Resistance	≥100GΩ	≥500ΩF OR 50 GΩ	
Dielectric Strength	Rated Voltage	Test Voltage	Time
	Ur=100V	2.5Ur	60±5S
	200V≤Ur≤1000V	1.5Ur	60±5S
	Ur>1000V	1.2Ur	60±5S

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### Capacitance & Voltage

		1PF	1.5PF	2.0PF	3.3PF	10PF	100PF	150PF	220PF	270PF	330PF	470PF	560PF	680PF	820PF	1000PF	1200PF	1500PF	1800PF	2000PF	2200PF	2700PF	3000PF	3300PF	3900PF	4700PF	5600PF	6800PF	8200PF	10000PF	12000PF	15000PF	18000PF	22000PF	33000PF	47000PF	100000PF	220000PF			
0603(1608)																																									
L	1.60 ± 0.10mm	100V																																							
W	0.80 ± 0.10mm	200V																																							
T	0.80 ± 0.10mm																																								
WB	0.30 ± 0.10mm																																								
0805(2012)																																									
L	2.00 ± 0.20mm	100V																																							
W	1.25 ± 0.20mm	200V																																							
T	1.00 ± 0.20mm	500V																																							
WB	0.50 ± 0.20mm																																								
1206(3216)		100V																																							
L	3.20 ± 0.30mm	200V																																							
W	1.60 ± 0.20mm	500V																																							
T	1.00 ± 0.20mm	1000V																																							
WB	0.50 ± 0.25mm	2000V																																							
1210(3225)		100V																																							
L	3.20 ± 0.30mm	200V																																							
W	2.50 ± 0.30mm	500V																																							
T	1.50 ± 0.30mm	1000V																																							
WB	0.75 ± 0.25mm	2000V																																							
1808(4520)		100V																																							
L	4.50 ± 0.40mm	500V																																							
W	2.00 ± 0.20mm	1000V																																							
T	≤ 2.0mm	2000V																																							
WB	0.75 ± 0.25mm	3000V																																							
		4000V																																							
1812(4532)		100V																																							
L	4.50 ± 0.40mm	500V																																							
W	3.20 ± 0.30mm	1000V																																							
T	≤ 2.5mm	2000V																																							
WB	0.75 ± 0.25mm	3000V																																							
		4000V																																							
2225(5763)		100V																																							
L	5.70 ± 0.50mm	500V																																							
W	6.30 ± 0.50mm	1000V																																							
T	≤ 2.5mm	2000V																																							
WB	1.00 ± 0.25mm	3000V																																							
		4000V																																							
3035(7690)		100V																																							
L	7.60 ± 0.50mm	500V																																							
W	9.00 ± 0.50mm	1000V																																							
T	≤ 3.0mm	2000V																																							
WB	1.00 ± 0.25mm	3000V																																							
		4000V																																							

Specifications are subject to change without notice.

**Kingtronics® International Company**

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