




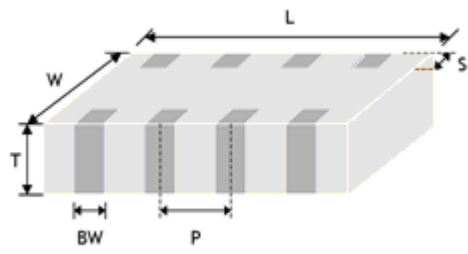
**Product Family:** [Multilayer Ceramic 4 cap Array Capacitors -AEC-Q200](#)

**Part Number Series:** [CAA Series](#)

	<p><b>Construction:</b></p> <ul style="list-style-type: none"> <li>NPO and X7R dielectric material</li> <li>High density and highly efficient materials used to achieve miniaturization</li> <li>100% matte tin over Ni terminations (RoHS compliant)RoHS 2011/65/EU compliant and Pb Free (100% tin terminations)</li> </ul>	<p><b>Features:</b></p> <ul style="list-style-type: none"> <li>0508 English size (1220 Metric)</li> <li>10pF to 0.1µF capacitance range</li> <li>10V to 50V</li> <li>High volume production suitable for commercial and special applications</li> </ul>
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**Description:**  
 The CAA series provides product with high electrical precision, stability, and reliability to assure quality performance, which is used for navigation, information and entertainment equipment in the automotive industry.

**Product Dimensions:**

Outline	Size Inch (mm)	L (mm)	W (mm)	T (mm)/Symbol		S (mm)	BW (mm)	P (mm)
	4x0402 0508 (1220)	2.00±0.15	1.25±0.15	0.85±0.10	T	0.20±0.10	0.25±0.10	0.50±0.10

All dimensions are shown in metric,  
 Reflow soldering process only.

**Part Numbering:** Ex: CAAC0508N500A221J-T4

Series	Termination	English Size (Metric)	Dielectric Type	Rated Voltage	Internal Code	Capacitance Value in pF	Capacitance Tolerance	T&R Packaging Quantity
CAA	C = Cu/Ni/Sn	0508(1220)	N=NP0 B=X7R	3 digits with the first 2 being significant. The last digit specifies the number of zeros. "R" denotes decimal position as necessary. Ex. = 101=100V	A	3 digits with the first 2 being significant. The last digit specifies the number of zeros. "R" denotes decimal position as necessary.  Ex. R10=0.10µF 101=100pF	J=±5% K=±10% M=±20%	-T4 = 4,000

**PACKAGING DIMENSION AND QUANTITY**

SIZE Inch (mm)	Thickness (mm) /Symbol		Paper tape	
			7" reel	13" reel
4x0402 0508 (1220)	0.85±0.10	T	4k	-

**Electrical Specifications:**

Dielectric	NP0	X7R
Size	4x0402	4x0402
Capacitance*	10pF to 220pF	1000pF to 0.1µF
Capacitance tolerance**	J (±5%), K (±10%)	K (±10%), M (±20%)
Rated voltage (WVDC)	50V	10V, 16V, 25V
Insulation resistance at Ur	≥10GΩ or RxC≥500ΩxF whichever is less	
Operating temperature	-55 to +125°C	
Capacitance characteristic	±30ppm	±15%
Termination	Ni/Sn (lead-free termination)	

\* Measured at 30~70% related humidity.

NP0: Apply 1.0±0.2Vrms, 1.0MHz±10% at the conditions of 25°C ambient temperature.

X7R: Apply 1.0±0.2Vrms, 1.0kHz±10%, at the conditions of 25°C ambient temperature.

\*\* Preconditioning for Class II MLCC: Perform a heat treatment at 150±10°C for 1 hour, then leave in ambient condition for 24±2 hours before measurement.

**Capacitance Range**

SIZE			4 x 0402		
	DIELECTRIC	NP0	X7R		
RATED VOLTAGE (VDC)	50	10	16	25	
Capacitance	10pF (100)	T			
	15pF (150)	T			
	22pF (220)	T			
	33pF (330)	T			
	47pF (470)	T			
	68pF (680)	T			
	100pF (101)	T			
	150pF (151)	T			
	180pF (181)	T			
	220pF (221)	T			
	270pF (271)				
	330pF (331)				
	470pF (471)				
	6,80pF (681)				
	1,000pF (102)		T	T	T
	1,500pF (152)		T	T	T
	2,200pF (222)		T	T	T
	3,300pF (332)		T	T	T
	4,700pF (472)		T	T	T
	6,800pF (682)		T	T	T
0.010µF (103)		T	T	T	
0.015µF (153)		T	T	T	
0.022µF (223)		T	T	T	
0.033µF (333)		T	T	T	
0.047µF (473)		T	T	T	
0.068µF (683)		T	T	T	
0.10µF (104)		T	T	T	

The letter in cell is expressed the symbol of product thickness.