

## ATC HP 1210 Series High Performance NPO Ceramic MLCS

### Electrical Characteristics:

Capacitance Range: 1.0 pF to 1000 pF @ 1 MHz

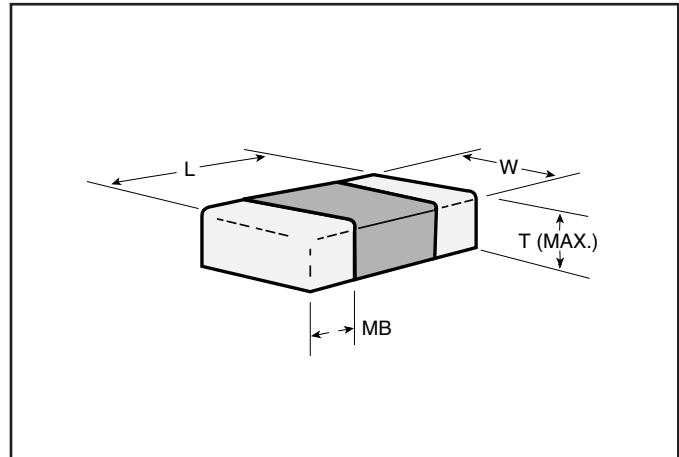
Temperature Coefficient of Capacitance:  $0 \pm 30$  ppm/°C (-55° to +125°C)

Insulation Resistance (IR)  $10^{12} \Omega$  min. @ 25°C and rated WVDC  
 $10^{11} \Omega$  min. @ 125°C and rated WVDC

Dielectric Working Voltage (DWW): 250% of rated WVDC

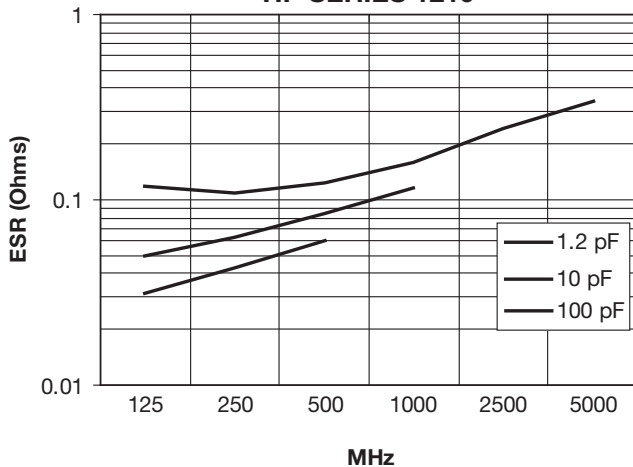
Working Voltage (WVDC) 200, 100 WVDC

ATC offers the new HP Series high performance family of MLC ceramic capacitors. Built in a rugged ceramic SMT package, these products deliver high performance at the right price. The HP series is available in four popular EIA case sizes and is suitable for tuning, DC blocking, coupling and bypassing over the full range of wireless frequencies. All HP Series products are RoHS compliant.

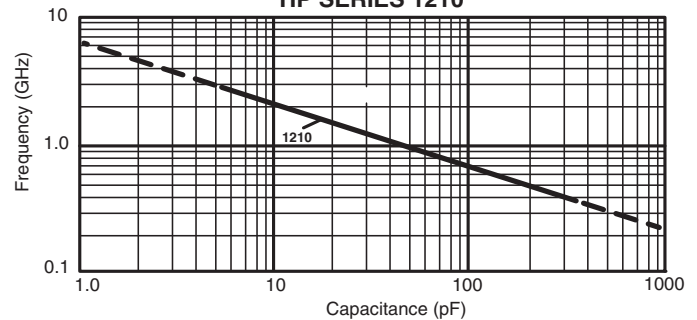


| Case Size       | 1210                              |
|-----------------|-----------------------------------|
| Length (L)      | $0.126 \pm 0.008$ (3.2 ± 0.2)     |
| Width (W)       | $0.098 \pm 0.008$ (2.49 ± 0.2)    |
| T Max.          | $0.050 \pm 0.005$ (1.27 ± 0.127)  |
| Term. (MB) Max. | $0.025 \pm 0.015$ (0.635 ± 0.381) |

**TYPICAL ESR vs. FREQUENCY  
HP SERIES 1210**



**TYPICAL  
SERIES RESONANT FREQUENCY  
HP SERIES 1210**



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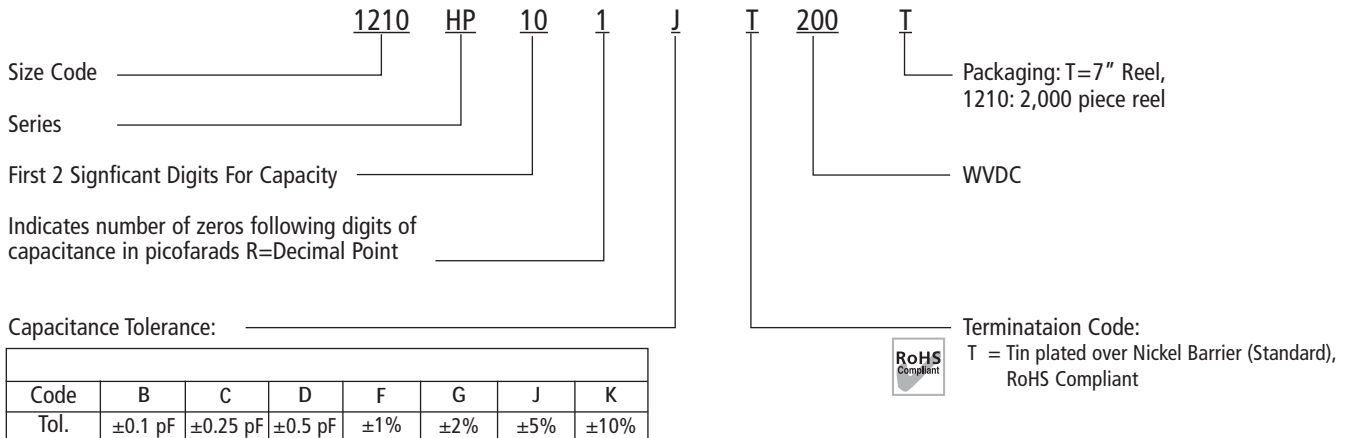
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# ATC HP 1210 SERIES HIGH PERFORMANCE NPO CERAMIC MLCS

## Capacitance Values:

| CAP. CODE | CAP. (pF) | TOL.    | RATED WVDC | CAP. CODE | CAP. (pF) | TOL.       | RATED WVDC | CAP. CODE | CAP. (pF) | TOL.       | RATED WVDC | CAP. CODE | CAP. (pF) | TOL.       | RATED WVDC |
|-----------|-----------|---------|------------|-----------|-----------|------------|------------|-----------|-----------|------------|------------|-----------|-----------|------------|------------|
| 1R0       | 1.0       |         |            | 4R3       | 4.3       |            |            | 300       | 30        |            |            | 181       | 180       |            |            |
| 1R1       | 1.1       |         |            | 4R7       | 4.7       |            |            | 330       | 33        |            |            | 201       | 200       |            |            |
| 1R2       | 1.2       |         |            | 5R1       | 5.1       | B, C, D    |            | 360       | 36        |            |            | 221       | 220       |            |            |
| 1R3       | 1.3       |         |            | 5R6       | 5.6       |            |            | 390       | 39        |            |            | 271       | 270       |            |            |
| 1R4       | 1.4       |         |            | 6R2       | 6.2       |            |            | 430       | 43        |            |            | 301       | 300       |            | 200        |
| 1R5       | 1.5       |         |            | 6R8       | 6.8       |            |            | 470       | 47        |            |            | 331       | 330       |            |            |
| 1R6       | 1.6       |         |            | 7R5       | 7.5       | B, C, J, K |            | 510       | 51        |            |            | 361       | 360       |            |            |
| 1R7       | 1.7       |         |            | 8R2       | 8.2       |            |            | 560       | 56        |            |            | 391       | 390       |            |            |
| 1R8       | 1.8       |         |            | 9R1       | 9.1       |            |            | 680       | 68        |            |            | 431       | 430       |            |            |
| 1R9       | 1.9       | B, C, D | 200        | 100       | 10        |            | 200        | 750       | 75        | F, G, J, K | 200        | 471       | 470       | F, G, J, K |            |
| 2R0       | 2.0       |         |            | 110       | 11        |            |            | 820       | 82        |            |            | 511       | 510       |            |            |
| 2R1       | 2.1       |         |            | 120       | 12        |            |            | 910       | 91        |            |            | 561       | 560       |            |            |
| 2R2       | 2.2       |         |            | 130       | 13        |            |            | 101       | 100       |            |            | 621       | 620       |            |            |
| 2R4       | 2.4       |         |            | 150       | 15        | F, G, J, K |            | 111       | 110       |            |            | 681       | 680       |            | 100        |
| 2R7       | 2.7       |         |            | 180       | 18        |            |            | 121       | 120       |            |            | 751       | 750       |            |            |
| 3R0       | 3.0       |         |            | 200       | 20        |            |            | 131       | 130       |            |            | 821       | 820       |            |            |
| 3R3       | 3.3       |         |            | 220       | 22        |            |            | 141       | 140       |            |            | 911       | 910       |            |            |
| 3R6       | 3.6       |         |            | 240       | 24        |            |            | 151       | 150       |            |            | 102       | 1000      |            |            |
| 3R9       | 3.9       |         |            | 270       | 27        |            |            | 161       | 160       |            |            |           |           |            |            |

### Part Number Code



The above part number refers to an ATC HP 1210 Series 100 pF capacitor, F tolerance (±1%), 200 WVDC, with T termination (Tin Plated over Nickel Barrier), on 7 inch reel.

For additional information and catalogs contact your ATC representative or call direct at (+1-631) 622-4700. Consult factory for additional performance data.

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