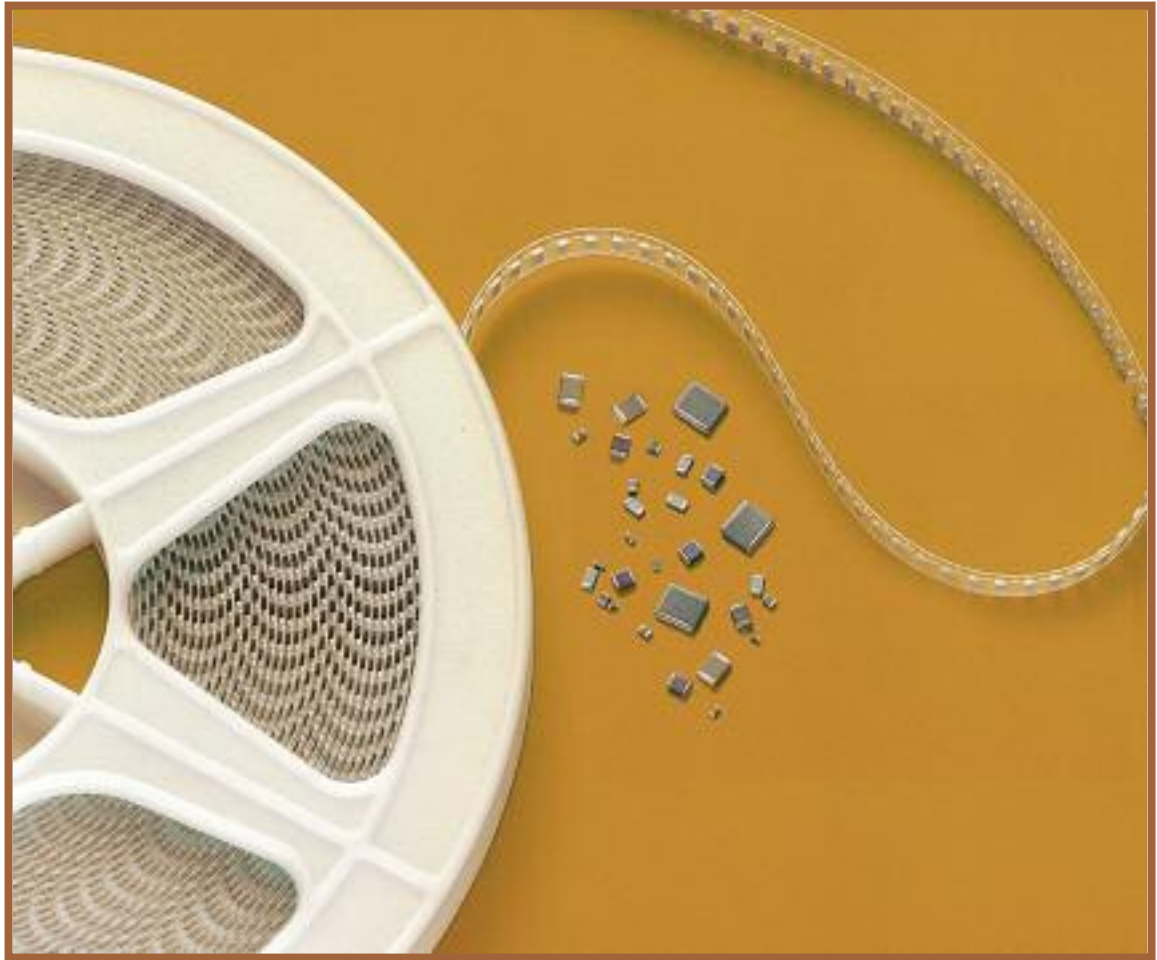




AMERICAN
TECHNICAL
CERAMICS

HP SERIES HIGH PERFORMANCE CAPACITORS



THE
ENGINEERS'
CHOICE®

Low Cost HP Series High Performance
Multilayer Ceramic Capacitors

ISO 9001
REGISTERED
COMPANY



ATC 001-1103, Rev. C; 7/12

ATC HP 0402 Series High Performance NPO Ceramic MLCs

Electrical Characteristics:

Capacitance Range: 0.2 pF to 30 pF @ 1 MHz

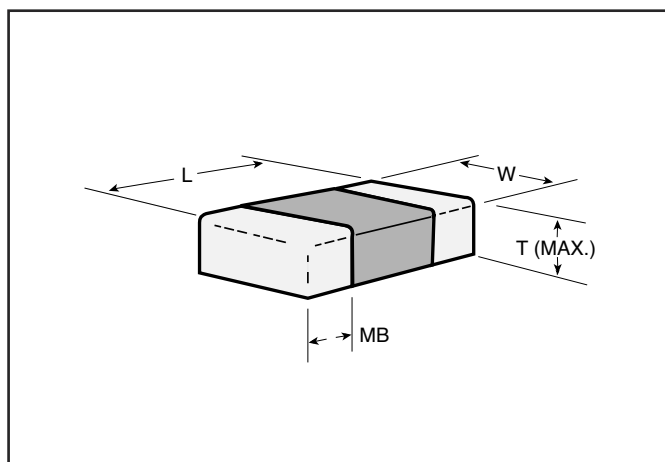
Temperature Coefficient of Capacitance: 0 ± 30 ppm/°C
(-55° to +125°C)

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

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

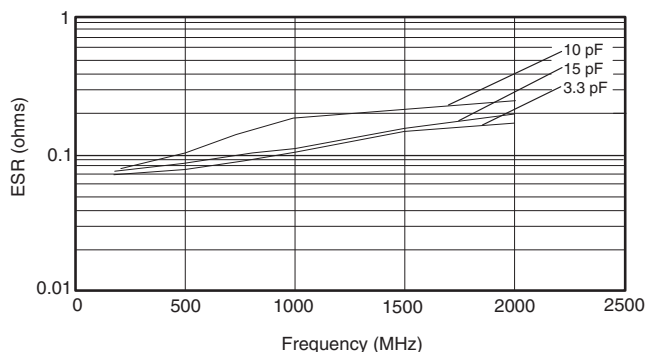
Working Voltage (WVDC) 50 WVDC

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.

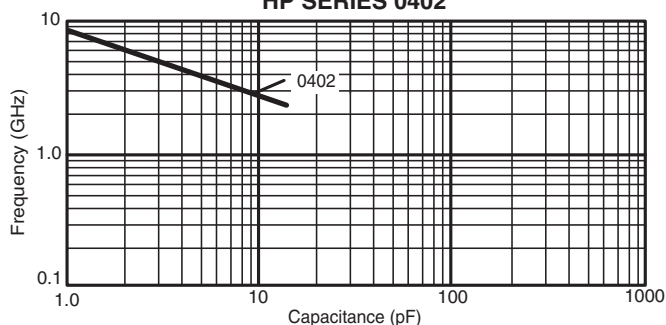


Case Size	0402
Length (L)	0.039 ± 0.004 (1.00 $\pm$ 0.1)
Width (W)	0.020 ± 0.004 (0.50 $\pm$ 0.1)
T Max.	0.024 (0.6)
Term. (MB) Max.	N/A

**TYPICAL ESR vs. FREQUENCY
HP SERIES 0402**



**TYPICAL
SERIES RESONANT FREQUENCY
HP SERIES 0402**



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com

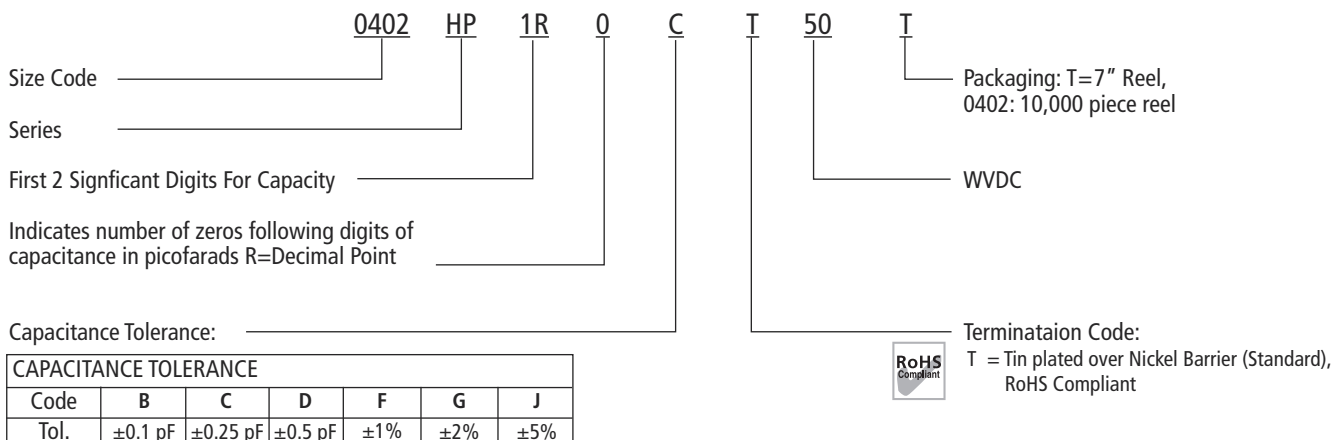
www.atceramics.com

ATC HP 0402 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
0R2	0.2	B, C	50	1R4	1.4	B, C, D	50	3R3	3.3	B, C, D	50	100	10	F, G, J	50
0R3	0.3			1R5	1.5			3R6	3.6			110	11		
0R4	0.4			1R6	1.6			3R9	3.9			120	12		
0R5	0.5			1R7	1.7			4R3	4.3			130	13		
0R6	0.6	B, C, D		1R8	1.8			4R7	4.7	150		15			
0R7	0.7			1R9	1.9			5R1	5.1	180		18			
0R8	0.8			2R0	2.0			5R6	5.6	200		20			
0R9	0.9			2R1	2.1			6R2	6.2	220		22			
1R0	1.0			2R2	2.2			B, C	240	24					
1R1	1.1			2R4	2.4				270	27					
1R2	1.2			2R7	2.7				300	30					
1R3	1.3			3R0	3.0				9R1	9.1					

Part Number Code



The above part number refers to an ATC HP 0402 Series 1.0 pF capacitor, C tolerance (±0.25 pF), 50 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.

A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com

www.atceramics.com

ATC HP 0603 Series High Performance NPO Ceramic MLCs

Electrical Characteristics:

Capacitance Range: 1.0 pF to 120 pF @ 1 MHz

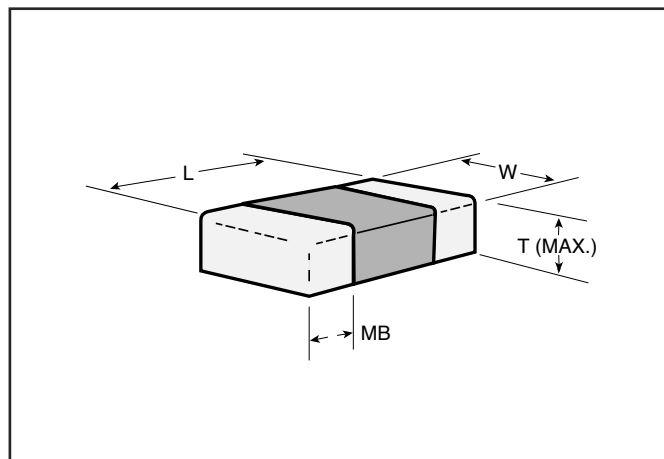
Temperature Coefficient of Capacitance: 0 ± 30 ppm/°C
(-55° to +125°C)

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

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

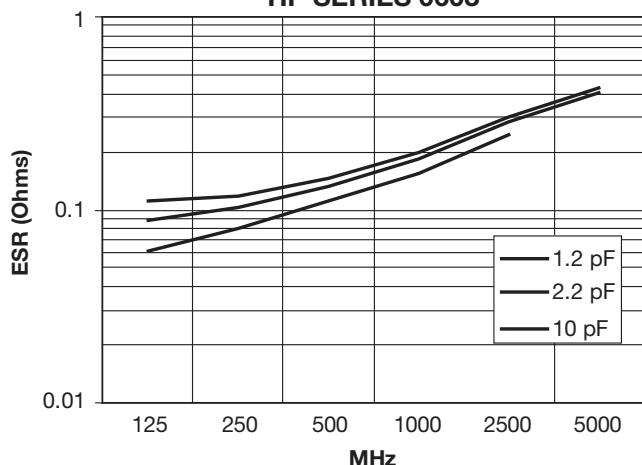
Working Voltage (WVDC) 250, 100, 50 WVDC

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.

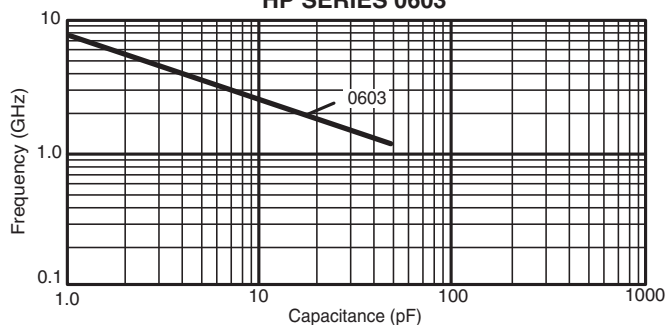


Case Size	0603
Length (L)	0.060 ± 0.010 (1.52 $\pm$ 0.25)
Width (W)	0.030 ± 0.010 (0.76 $\pm$ 0.25)
T Max.	0.036 (0.91)
Term. (MB) Max.	0.010 ± 0.005 (0.25 $\pm$ 0.13)

**TYPICAL ESR vs. FREQUENCY
HP SERIES 0603**



**TYPICAL
SERIES RESONANT FREQUENCY
HP SERIES 0603**



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

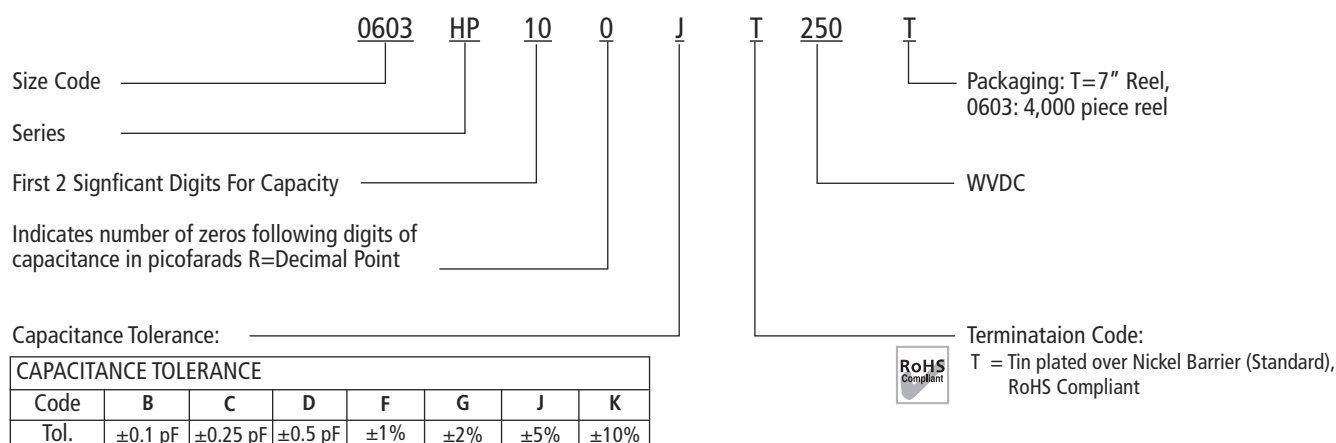
ATC Asia
sales@atceramics-asia.com

www.atceramics.com

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			2R7	2.7			9R1	9.1	B, C		360	36		
1R1	1.1			3R0	3.0			100	10			390	39		
1R2	1.2			3R3	3.3			110	11			430	43		
1R3	1.3			3R6	3.6			120	12			470	47		250
1R4	1.4			3R9	3.9			130	13			510	51		
1R5	1.5			4R3	4.3	B, C, D		150	15			560	56		
1R6	1.6	B, C, D	250	4R7	4.7			180	18	F, G, J, K	250	680	68	F, G, J, K	
1R7	1.7			5R1	5.1		250	200	20			750	75		
1R8	1.8			5R6	5.6			220	22			820	82		100
1R9	1.9			6R2	6.2			240	24			910	91		
2R0	2.0			6R8	6.8			270	27			101	100		
2R1	2.1			7R5	7.5			300	30			111	110		50
2R2	2.2			8R2	8.2	B, C		330	33			121	120		
2R4	2.4														

Part Number Code



The above part number refers to an ATC HP 0603 Series 10 pF capacitor, J tolerance (±5%), 250 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.

A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com

www.atceramics.com

ATC HP 0805 Series High Performance NPO Ceramic MLCs

Electrical Characteristics:

Capacitance Range: 1.0 pF to 160 pF @ 1 MHz

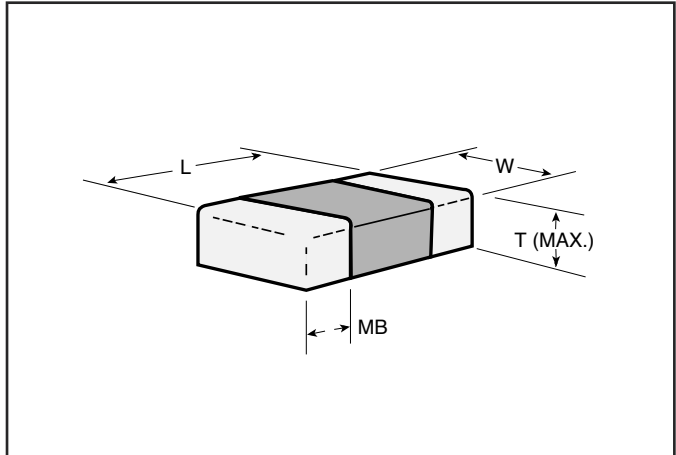
Temperature Coefficient of Capacitance: 0 ± 30 ppm/°C
(-55° to +125°C)

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

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

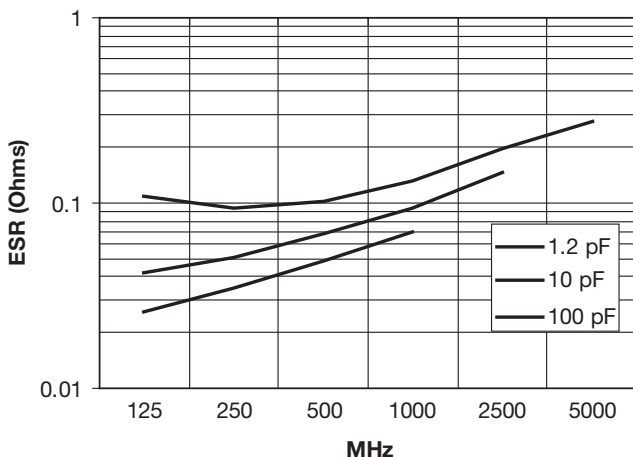
Working Voltage (WVDC) 250 WVDC

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.

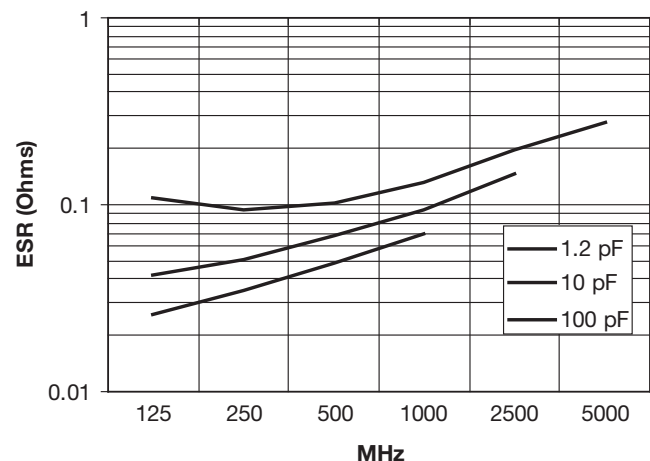


Case Size	0805
Length (L)	0.079 ± 0.008 (2.01 $\pm$ 0.2)
Width (W)	0.049 ± 0.008 (1.25 $\pm$ 0.2)
T Max.	0.040 ± 0.005 (1.02 $\pm$ 0.127)
Term. (MB) Max.	0.020 ± 0.010 (0.51 $\pm$ 0.254)

**TYPICAL ESR vs. FREQUENCY
HP SERIES 0805**



**TYPICAL ESR vs. FREQUENCY
HP SERIES 0805**



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

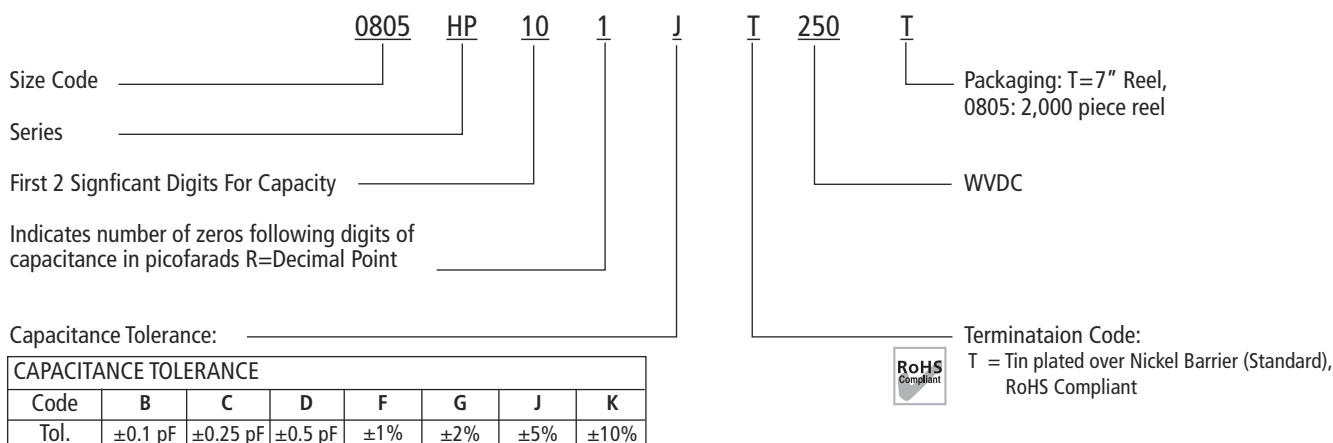
ATC Asia
sales@atceramics-asia.com

www.atceramics.com

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			3R0	3.0			110	11			470	47		
1R1	1.1			3R3	3.3			120	12			510	51		
1R2	1.2			3R6	3.6			130	13			560	56		
1R3	1.3			3R9	3.9			150	15			680	68		
1R4	1.4			4R3	4.3	B, C, D		180	18			750	75		
1R5	1.5			4R7	4.7			200	20			820	82		
1R6	1.6			5R1	5.1			220	22			910	91		
1R7	1.7	B, C, D	250	5R6	5.6		250	240	24	F, G, J, K	250	101	100	F, G, J, K	250
1R8	1.8			6R2	6.2			270	27			111	110		
1R9	1.9			6R8	6.8			300	30			121	120		
2R0	2.0			7R5	7.5	B, C		330	33			131	130		
2R1	2.1			8R2	8.2			360	36			141	140		
2R2	2.2			9R1	9.1			390	39			151	150		
2R4	2.4			100	10	F, G, J, K		430	43			161	160		
2R7	2.7														

Part Number Code



The above part number refers to an ATC HP 0805 Series 100 pF capacitor, F tolerance (±1%), 250 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.

A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com

www.atceramics.com

ATC HP 1210 Series High Performance NPO Ceramic MLCs

Electrical Characteristics:

Capacitance Range: 1.0 pF to 1000 pF @ 1 MHz

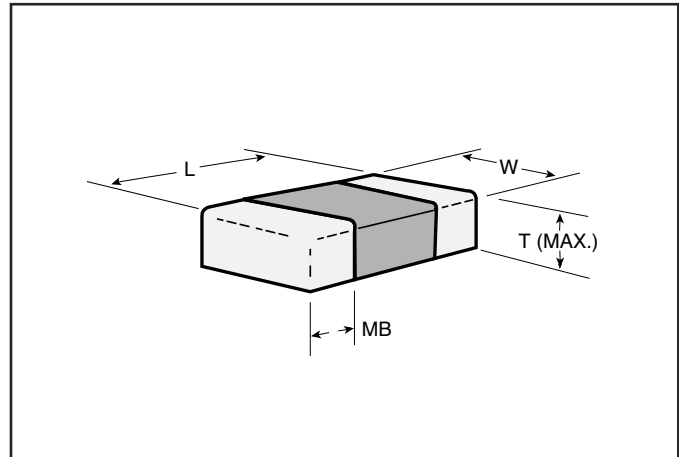
Temperature Coefficient of Capacitance: 0 ± 30 ppm/°C
(-55° to +125°C)

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

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

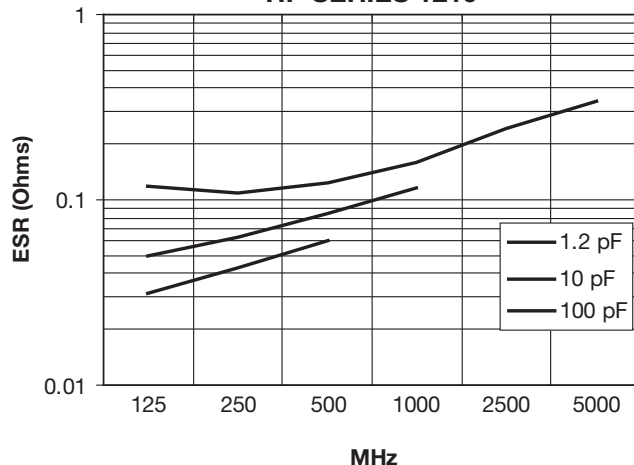
Working Voltage (WVDC) 200, 100 WVDC

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.

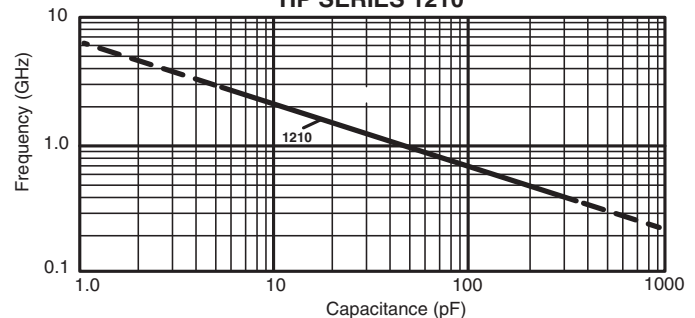


Case Size	1210
Length (L)	0.126 ± 0.008 (3.2 $\pm$ 0.2)
Width (W)	0.098 ± 0.008 (2.49 $\pm$ 0.2)
T Max.	0.050 ± 0.005 (1.27 $\pm$ 0.127)
Term. (MB) Max.	0.025 ± 0.015 (0.635 $\pm$ 0.381)

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



**TYPICAL
SERIES RESONANT FREQUENCY
HP SERIES 1210**



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
saleseur@atceramics.com

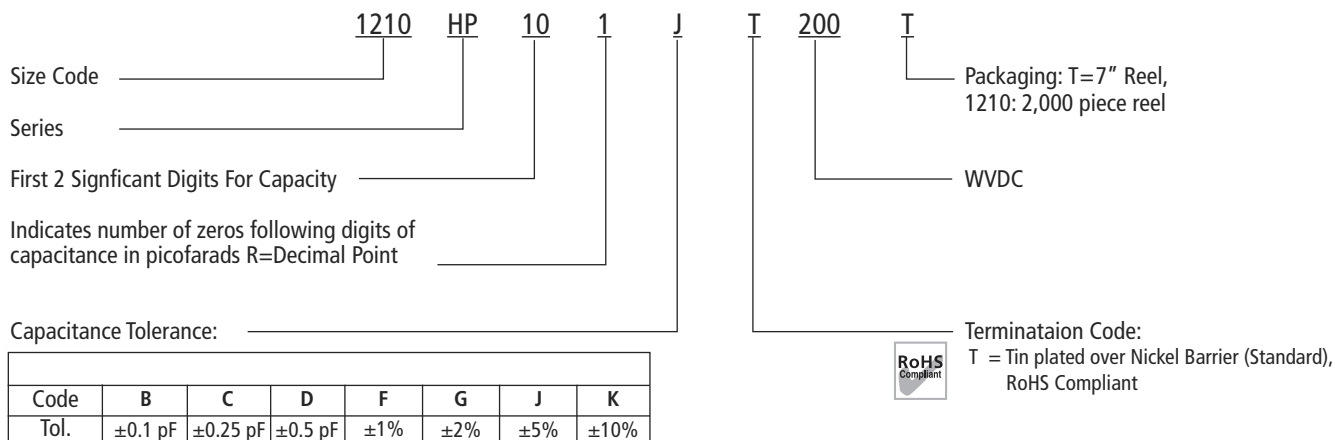
ATC Asia
sales@atceramics-asia.com

www.atceramics.com

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		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.

A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
sales@atceramics.com

ATC Asia
sales@atceramics-asia.com

www.atceramics.com

Sales of ATC products are subject to the terms and conditions contained in American Technical Ceramics Corp. Terms and Conditions of Sale(ATC document #001-992 Rev. B 12/05). Copies of these terms and conditions will be provided upon request. They may also be viewed on ATC's website at www.atceramics.com/productfinder/default.asp. Click on the link for Terms and Conditions of Sale.

ATC has made every effort to have this information as accurate as possible. However, no responsibility is assumed by ATC for its use, nor for any infringements of rights of third parties which may result from its use. ATC reserves the right to revise the content or modify its product without prior notice.

© 2011 American Technical Ceramics. All Rights Reserved.

ATC 001-1103 Rev. C; 7/12



AMERICAN

ATC North America
sales@atceramics.com

TECHNICAL

ATC Europe
saleseur@atceramics.com

CERAMICS

ATC Asia
sales@atceramics-asia.com

THE ENGINEERS' CHOICE™

www.atceramics.com

 **THE
ENGINEERS'
CHOICE®**
ISO 9001 REGISTERED
COMPANY

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[American Technical Ceramics \(ATC\):](#)

[0402HP100GT50T](#)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.