



## SMD Multilayer Ferrite Chip Inductors - HPF Series

### FEATURES

- \* RoHS compliant
- \* High mounting density of compact circuit due to crosstalk elimination that results from a closed magnetic flux in a ferrite material
- \* Suitable for flow and re-flow soldering
- \* Available in 5 sizes



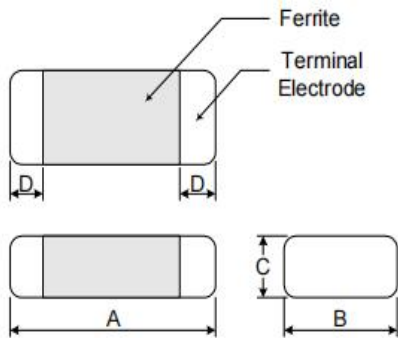
### ORDERING CODE(标志示例)

HPF    □□□□    -    □□□    □

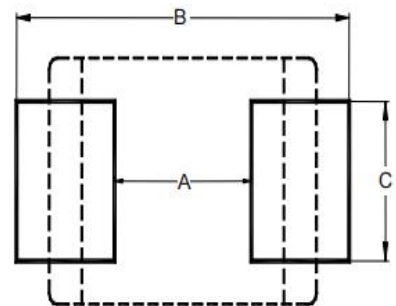
(1)            (2)            (3)        (4)

- (1) HPF 向华料号 Part Number
- (2) 尺寸 Dimensions
- (3) 电感量 Inductance
- (4) 电感量公差 Inductance Tolerance

#### Shape and Dimensions



#### Recommended Pattern



Dimensions in mm

TYPE	A	B	C	D
HPF160808	1.6±0.20	0.80±0.20	0.80±0.20	0.30±0.20
HPF201209	2.0±0.20	1.25±0.20	0.90±0.20	0.50±0.30
HPF201212	2.0±0.20	1.25±0.20	1.25±0.20	0.50±0.30
HPF321611	3.2±0.20	1.60±0.20	1.10±0.20	0.50±0.30

Dimensions in mm

TYPE	A	B	C
HPF160808	0.7~0.8	1.8~2.0	0.6~0.8
HPF201209	1.0~1.2	2.6~4.0	1.0~1.2
HPF201212	1.0~1.2	2.6~4.0	1.0~1.2
HPF321611	2	4.2~5.2	1.2



## SMD Multilayer Ferrite Chip Inductors - HPF160808 Series

### HPF160808 series Electrical Characteristics

Part No.	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Freq. (MHz)	SRF (MHz)Min	RDC ( $\Omega$ )Max	IDC (mA) Max
HPF160808T-10N□	0.010	20	15	50	300	0.2	50
HPF160808T-33N□	0.033	20	15	50	270	0.2	50
HPF160808T-47N□	0.047	20	15	50	260	0.3	50
HPF160808T-56N□	0.056	20	15	50	255	0.3	50
HPF160808T-68N□	0.068	20	15	50	250	0.3	50
HPF160808T-82N□	0.082	20	15	50	245	0.3	50
HPF160808T-R10□	0.10	20 / 15 / 10	25	25	240	0.5	50
HPF160808T-R12□	0.12	20 / 15 / 10	25	25	205	0.5	50
HPF160808T-R15□	0.15	20 / 15 / 10	25	25	180	0.6	50
HPF160808T-R18□	0.18	20 / 15 / 10	25	25	165	0.6	50
HPF160808T-R22□	0.22	20 / 15 / 10	25	25	150	0.8	50
HPF160808T-R27□	0.27	20 / 15 / 10	25	25	136	0.8	50
HPF160808T-R33□	0.33	20 / 15 / 10	25	25	125	0.85	35
HPF160808T-R39□	0.39	20 / 15 / 10	25	25	110	1.00	35
HPF160808T-R47□	0.47	20 / 15 / 10	25	25	105	1.35	35
HPF160808T-R56□	0.56	20 / 15 / 10	25	25	95	1.50	35
HPF160808T-R68□	0.68	20 / 15 / 10	25	25	85	1.70	35
HPF160808T-R82□	0.82	20 / 15 / 10	25	25	75	2.10	35
HPF160808T-1R0□	1.0	20 / 15 / 10	35	10	65	0.60	25
HPF160808T-1R2□	1.2	20 / 15 / 10	35	10	60	0.80	25
HPF160808T-1R5□	1.5	20 / 15 / 10	35	10	55	0.80	25
HPF160808T-1R8□	1.8	20 / 15 / 10	35	10	50	0.95	25
HPF160808T-2R2□	2.2	20 / 15 / 10	35	10	45	1.00	15
HPF160808T-2R7□	2.7	20 / 15 / 10	35	10	40	1.15	15
HPF160808T-3R3□	3.3	20 / 15 / 10	35	10	38	1.30	15
HPF160808T-3R9□	3.9	20 / 15 / 10	35	10	36	1.50	15
HPF160808T-4R7□	4.7	20 / 15 / 10	35	10	33	1.60	15
HPF160808T-5R6□	5.6	20 / 15 / 10	35	4	22	1.10	5
HPF160808T-6R8□	6.8	20 / 15 / 10	35	4	20	1.30	5
HPF160808T-8R2□	8.2	20 / 15 / 10	30	4	18	1.50	5
HPF160808T-100□	10	20 / 15 / 10	30	2	17	1.70	5
HPF160808T-120□	12	20 / 15 / 10	30	2	15	1.80	3
HPF160808T-150□	15	20 / 15 / 10	20	1	14	1.50	1
HPF160808T-220□	22	20 / 15 / 10	20	1	11	1.70	1

**Note: When ordering, please specify tolerance code. Tolerance : K=±10% , L=±15% , M=±20%**

- Operating temperature range  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)
- IDC: Applied the current to coils, the inductance shall be less than 10% initial value

Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.



## SMD Multilayer Ferrite Chip Inductors - HPF201209 Series

### HPF201209 series Electrical Characteristics

Part No.	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Freq. (MHz)	SRF (MHz)Min	RDC ( $\Omega$ )Max	IDC (mA) Max
HPF201209T-22N□	0.022	20	20	50	320	0.20	300
HPF201209T-33N□	0.033	20 / 15	20	50	320	0.20	300
HPF201209T-47N□	0.047	20 / 15	20	50	320	0.20	300
HPF201209T-56N□	0.056	20 / 15	20	50	320	0.20	300
HPF201209T-68N□	0.068	20 / 15	20	50	280	0.20	300
HPF201209T-82N□	0.082	20 / 15	20	50	255	0.20	300
HPF201209T-R10□	0.10	20 / 15 / 10	25	25	235	0.30	250
HPF201209T-R12□	0.12	20 / 15 / 10	25	25	220	0.30	250
HPF201209T-R15□	0.15	20 / 15 / 10	25	25	200	0.40	250
HPF201209T-R18□	0.18	20 / 15 / 10	25	25	185	0.40	250
HPF201209T-R22□	0.22	20 / 15 / 10	25	25	170	0.50	250
HPF201209T-R27□	0.27	20 / 15 / 10	25	25	150	0.50	250
HPF201209T-R33□	0.33	20 / 15 / 10	25	25	145	0.55	250
HPF201209T-R39□	0.39	20 / 15 / 10	25	25	135	0.65	250
HPF201209T-R47□	0.47	20 / 15 / 10	25	25	125	0.65	250
HPF201209T-R56□	0.56	20 / 15 / 10	25	25	115	0.75	150
HPF201209T-R68□	0.68	20 / 15 / 10	25	25	105	0.80	150
HPF201209T-R82□	0.82	20 / 15 / 10	25	25	100	1.00	150
HPF201209T-1R0□	1.0	20 / 15 / 10	45	10	75	0.40	50
HPF201209T-1R2□	1.2	20 / 15 / 10	45	10	65	0.50	50
HPF201209T-1R5□	1.5	20 / 15 / 10	45	10	60	0.50	50
HPF201209T-1R8□	1.8	20 / 15 / 10	45	10	55	0.60	50
HPF201209T-2R2□	2.2	20 / 15 / 10	45	10	50	0.65	30

**Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%**

- Operating temperature range  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)
- IDC: Applied the current to coils, the inductance shall be less than 10% initial value

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## SMD Multilayer Ferrite Chip Inductors - HPF201212 Series

### HPF201212 series Electrical Characteristics

Part No.	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Freq. (MHz)	SRF (MHz)Min	RDC ( $\Omega$ )Max	IDC (mA) Max
HPF201212T-2R7□	2.7	20 / 15 / 10	45	10	45	0.75	30
HPF201212T-3R3□	3.3	20 / 15 / 10	45	10	41	0.80	30
HPF201212T-3R9□	3.9	20 / 15 / 10	45	10	38	0.90	30
HPF201212T-4R7□	4.7	20 / 15 / 10	45	10	35	1.00	30
HPF201212T-5R6□	5.6	20 / 15 / 10	45	4	32	0.90	15
HPF201212T-6R8□	6.8	20 / 15 / 10	45	4	29	1.00	15
HPF201212T-8R2□	8.2	20 / 15 / 10	45	4	26	1.10	15
HPF201212T-100□	10	20 / 15 / 10	45	2	24	1.10	15
HPF201212T-120□	12	20 / 15 / 10	45	2	22	1.20	15
HPF201212T-150□	15	20 / 15 / 10	30	1	19	0.80	5
HPF201212T-180□	18	20 / 15 / 10	30	1	18	0.90	5
HPF201212T-220□	22	20 / 15 / 10	30	1	16	1.10	5

**Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%**

- Operating temperature range  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)
- IDC: Applied the current to coils, the inductance shall be less than 10% initial value



## SMD Multilayer Ferrite Chip Inductors - HPF321611 Series

### HPF321611 series Electrical Characteristics

Part No.	Inductance ( $\mu$ H)	Tolerance ( $\pm$ %)	Q Min	Test Freq. (MHz)	SRF (MHz)Min	RDC ( $\Omega$ )Max	IDC (mA) Max
HPF321611T-47N□	0.047	20	20	50	320	0.15	300
HPF321611T-56N□	0.056	20	20	50	280	0.25	300
HPF321611T-68N□	0.068	20	20	50	280	0.25	300
HPF321611T-82N□	0.082	20	20	50	250	0.25	300
HPF321611T-R10□	0.10	20 / 15 / 10	25	25	235	0.25	250
HPF321611T-R12□	0.12	20 / 15 / 10	25	25	220	0.30	250
HPF321611T-R15□	0.15	20 / 15 / 10	25	25	200	0.30	250
HPF321611T-R18□	0.18	20 / 15 / 10	25	25	185	0.40	250
HPF321611T-R22□	0.22	20 / 15 / 10	25	25	170	0.40	250
HPF321611T-R27□	0.27	20 / 15 / 10	25	25	150	0.50	250
HPF321611T-R33□	0.33	20 / 15 / 10	25	25	145	0.60	250
HPF321611T-R39□	0.39	20 / 15 / 10	25	25	135	0.50	200
HPF321611T-R47□	0.47	20 / 15 / 10	25	25	125	0.60	200
HPF321611T-R56□	0.56	20 / 15 / 10	25	25	115	0.70	150
HPF321611T-R68□	0.68	20 / 15 / 10	25	25	105	0.80	150
HPF321611T-R82□	0.82	20 / 15 / 10	25	25	100	0.90	150
HPF321611T-1R0□	1.0	20 / 15 / 10	45	10	75	0.40	100
HPF321611T-1R2□	1.2	20 / 15 / 10	45	10	65	0.50	100
HPF321611T-1R5□	1.5	20 / 15 / 10	45	10	60	0.50	80
HPF321611T-1R8□	1.8	20 / 15 / 10	45	10	55	0.50	70
HPF321611T-2R2□	2.2	20 / 15 / 10	45	10	50	0.60	60
HPF321611T-2R7□	2.7	20 / 15 / 10	45	10	45	0.60	60
HPF321611T-3R3□	3.3	20 / 15 / 10	45	10	41	0.70	60
HPF321611T-3R9□	3.9	20 / 15 / 10	45	10	38	0.80	50
HPF321611T-4R7□	4.7	20 / 15 / 10	45	10	35	0.90	50
HPF321611T-5R6□	5.6	20 / 15 / 10	45	4	32	0.70	25
HPF321611T-6R8□	6.8	20 / 15 / 10	45	4	29	0.80	25
HPF321611T-8R2□	8.2	20 / 15 / 10	45	4	26	0.90	25
HPF321611T-100□	10	20 / 15 / 10	45	2	24	1.00	25
HPF321611T-120□	12	20 / 15 / 10	45	2	22	1.00	15
HPF321611T-150□	15	20 / 15 / 10	35	1	19	0.70	5
HPF321611T-180□	18	20 / 15 / 10	35	1	18	0.75	5
HPF321611T-220□	22	20 / 15 / 10	35	1	16	0.90	5
HPF321611T-270□	27	20 / 15 / 10	35	1	14	0.90	5

**Note: When ordering, please specify tolerance code. Tolerance : K= $\pm$ 10% , L= $\pm$ 15% , M= $\pm$ 20%**

- Operating temperature range  $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$  (Including self - temperature rise)
- IDC: Applied the current to coils, the inductance shall be less than 10% initial value

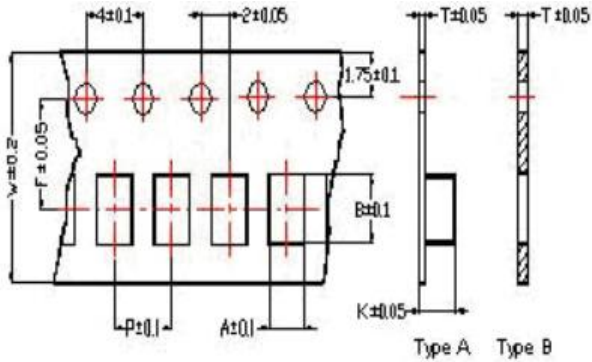
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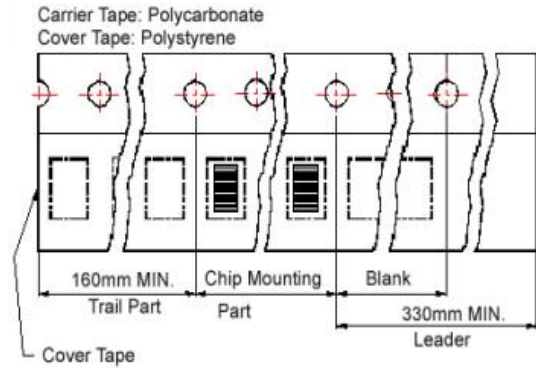
## SMD Multilayer Ferrite Chip Inductors - HPF Series

### Packaging Specifications

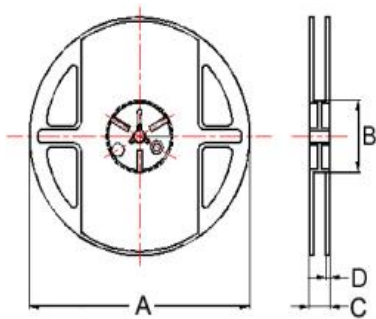
**Tape Dimensions**



**Tape Material**



**Reel Dimensions**



### Dimensions in mm

TYPE	Tape Dimensions								Reel Dimensions				Quantity PCS/REEL
	A	B	T	W	P	F	K	Tape	A	B	C	D	
HPF160808	1.05	1.85	0.95	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
HPF201209	1.50	2.30	0.97	8.0	4.0	3.5	-	B	178	60	12	1.5	4000
HPF201212	1.35	2.25	0.22	8.0	4.0	3.5	1.35	A	178	60	12	1.5	3000
HPF321611	1.88	3.50	0.22	8.0	4.0	3.5	1.27	A	178	60	12	1.5	3000