

## CUSTOMER APPROVAL SHEET

CUSTOMER :

CUSTOMER'S DWG NO :

CUSTOMER'S ITEM :

OUR DWG No :

OUR ITEM : **MPFN Series**

QUANTITY :

DATE : **2024/04/09**

### SPECIFICATION

	“ √ ”	CUSTOMER'S SIGNATURE	NOTE
FULL APPROVAL			
CONDITIONAL APPROVED			
REJECTED			

DRAWN BY	CHECKED BY	APPROVED BY
William	Nady	Elsa

#### **Head office**

聯磁企業股份有限公司

EROCORE Enterprise Co Ltd

(235) 16F., No.700, Jhongheng Rd., Jhonghe City, Taipei Country, Taiwan(R.O.C.)

Tel: 886-2-82278908

Fax: 886-2-82278907

Web site: [www.core.com.tw](http://www.core.com.tw)



## SMD Molding Power Inductor (Flat Wire)

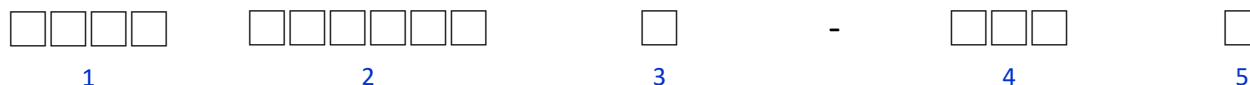
### 1.Features

- 1.High current,low DCR,high efficiency.
- 2.Magnetically Shielded Structure.
- 3.Low profile construction and miniature size.

### 2.Applications

- 1.DC to DC converters.
- 2.Power line filtering.
- 3.DVC/DSC/PDA, LCD display.

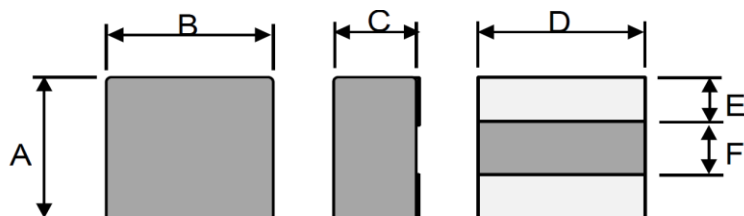
### 3.Product Identification



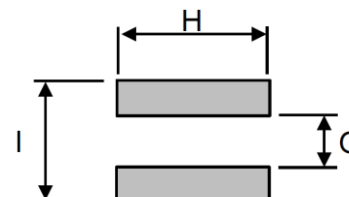
Series Name	Dimensions (L x W x H)		Internal code	
MPFN	141206	1.4*1.2*0.65 mm	H	Alloy
	252012	2.5*2.0*1.2 mm	D	Special Design

Inductance		Tolerance	
R47	0.47uH	M	20%
1R0	1.0uH		

### 4.Shape and Dimension



### 5.Recommended PCB Pattern



#### Dimensions(mm)

Type	A	B	C	D	E	F	G	H	I
MPFN100706DH	1.00±0.1	0.70±0.1	0.65 Max	0.70 Typ	0.30 Typ	0.40 Typ	0.30 Ref	0.90 Ref	1.20 Ref
MPFN121006H	1.20±0.2	1.00±0.2	0.65 Max	1.00 Typ	0.40 Typ	0.40 Typ	0.30 Ref	1.10 Ref	1.40 Ref
MPFN141206H	1.40±0.2	1.20±0.2	0.65 Max	1.20 Typ	0.45 Typ	0.50 Typ	0.45 Ref	1.30 Ref	1.60 Ref
MPFN141207H	1.40±0.2	1.20±0.2	0.70 Max	1.20 Typ	0.45 Typ	0.50 Typ	0.45 Ref	1.30 Ref	1.60 Ref
MPFN141208H	1.40±0.2	1.20±0.2	0.80 Max	1.20 Typ	0.45 Typ	0.50 Typ	0.45 Ref	1.30 Ref	1.60 Ref
MPFN160806H	1.60±0.2	0.80±0.2	0.65 Max	0.80 Typ	0.40 Typ	0.50 Typ	0.40 Ref	0.90 Ref	1.80 Ref
MPFN160806DH	1.60±0.2	0.80±0.1	0.65 Max	0.80 Typ	0.40 Typ	0.50 Typ	0.40 Ref	0.90 Ref	1.80 Ref
MPFN160808H	1.60±0.2	0.80±0.2	0.80 Max	0.80 Typ	0.55 Typ	0.50 Typ	0.40 Ref	0.90 Ref	1.80 Ref
MPFN160810H	1.60±0.2	0.80±0.2	1.00 Max	0.80 Typ	0.55 Typ	0.50 Typ	0.40 Ref	0.90 Ref	1.80 Ref
MPFN201206H	2.00±0.2	1.20±0.2	0.65 Max	1.20 Typ	0.75 Typ	0.60 Typ	0.50 Ref	1.30 Ref	2.20 Ref
MPFN201208H	2.00±0.2	1.20±0.2	0.80 Max	1.20 Typ	0.75 Typ	0.60 Typ	0.50 Ref	1.30 Ref	2.20 Ref
MPFN201210H	2.00±0.2	1.20±0.2	1.00 Max	1.20 Typ	0.75 Typ	0.60 Typ	0.50 Ref	1.30 Ref	2.20 Ref

## SMD Molding Power Inductor (Flat Wire)

### Dimensions(mm)

Type	A	B	C	D	E	F	G	H	I
MPFN201607H	2.00±0.2	1.60±0.2	0.70 Max	1.60 Typ	0.70 Typ	0.60 Typ	0.50 Ref	1.70 Ref	2.20 Ref
MPFN201608H	2.00±0.2	1.60±0.2	0.80 Max	1.60 Typ	0.70 Typ	0.60 Typ	0.50 Ref	1.70 Ref	2.20 Ref
MPFN201610H	2.00±0.2	1.60±0.2	1.00 Max	1.60 Typ	0.70 Typ	0.60 Typ	0.50 Ref	1.70 Ref	2.20 Ref
MPFN201610DH	2.00±0.2	1.60±0.1	1.00 Max	1.60 Typ	0.70 Typ	0.60 Typ	0.50 Ref	1.70 Ref	2.20 Ref
MPFN201612H	2.00±0.2	1.60±0.2	1.20 Max	1.60 Typ	0.70 Typ	0.60 Typ	0.50 Ref	1.70 Ref	2.20 Ref
MPFN252007H	2.50±0.2	2.00±0.3	0.75 Max	2.00 Typ	0.90 Typ	0.70 Typ	0.70 Ref	2.10 Ref	2.70 Ref
MPFN252008H	2.50±0.2	2.00±0.3	0.80 Max	2.00 Typ	0.90 Typ	0.70 Typ	0.70 Ref	2.10 Ref	2.70 Ref
MPFN252010H	2.50±0.2	2.00±0.3	1.00 Max	2.00 Typ	0.90 Typ	0.70 Typ	0.70 Ref	2.10 Ref	2.70 Ref
MPFN252012H	2.50±0.2	2.00±0.3	1.20 Max	2.00 Typ	0.90 Typ	0.70 Typ	0.70 Ref	2.10 Ref	2.70 Ref
MPFN322510H	3.20±0.2	2.50±0.3	1.00 Max	2.55 Typ	1.15 Typ	0.90 Typ	0.90 Ref	2.80 Ref	3.60 Ref
MPFN322512H	3.20±0.2	2.50±0.3	1.20 Max	2.55 Typ	1.15 Typ	0.90 Typ	0.90 Ref	2.80 Ref	3.60 Ref
MPFN322520H	3.20±0.2	2.50±0.3	2.00 Max	2.55 Typ	1.15 Typ	0.90 Typ	0.90 Ref	2.80 Ref	3.60 Ref
MPFN303010H	3.00±0.2	3.00±0.3	1.00 Max	3.00 Typ	1.00 Typ	1.00 Typ	0.90 Ref	3.30 Ref	3.60 Ref
MPFN303012H	3.00±0.2	3.00±0.3	1.20 Max	3.00 Typ	1.00 Typ	1.00 Typ	0.90 Ref	3.30 Ref	3.60 Ref
MPFN303015H	3.00±0.2	3.00±0.3	1.50 Max	3.00 Typ	1.00 Typ	1.00 Typ	0.90 Ref	3.30 Ref	3.60 Ref
MPFN303018H	3.00±0.2	3.00±0.3	1.80 Max	3.00 Typ	1.00 Typ	1.00 Typ	0.90 Ref	3.30 Ref	3.60 Ref
MPFN303020H	3.00±0.2	3.00±0.3	2.00 Max	3.00 Typ	1.00 Typ	1.00 Typ	0.90 Ref	3.30 Ref	3.60 Ref
MPFN404010H	4.10±0.2	4.10±0.2	1.00 Max	4.10 Typ	1.40 Typ	1.30 Typ	1.20 Ref	4.30 Ref	4.60 Ref
MPFN404012H	4.10±0.2	4.10±0.2	1.20 Max	4.10 Typ	1.40 Typ	1.30 Typ	1.20 Ref	4.30 Ref	4.60 Ref
MPFN404020H	4.10±0.2	4.10±0.2	2.00 Max	4.10 Typ	1.40 Typ	1.30 Typ	1.20 Ref	4.30 Ref	4.60 Ref
MPFN404030H	4.10±0.2	4.10±0.2	3.00 Max	4.10 Typ	1.40 Typ	1.30 Typ	1.20 Ref	4.30 Ref	4.60 Ref

### 6. Equivalent Circuit Schematic



### 7. Rating

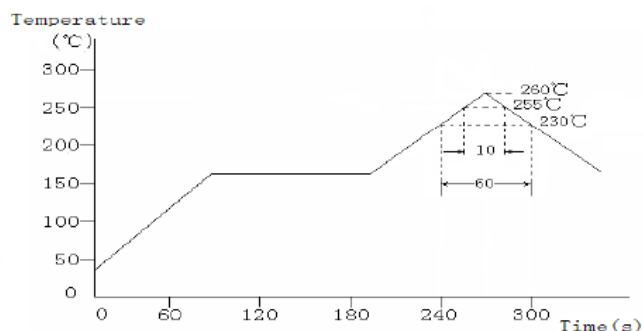
1. Operating temperature  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
2. Storage conditions  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
3. Before Unpacking Storage environment :  $0^{\circ}\text{C} \sim +40^{\circ}\text{C}$  ; RH10%~70%

### 9. Soldering

The products terminations are suitable for re-flow soldering.

## SMD Molding Power Inductor (Flat Wire)

### 10. Reflow Soldering Heat Endurance

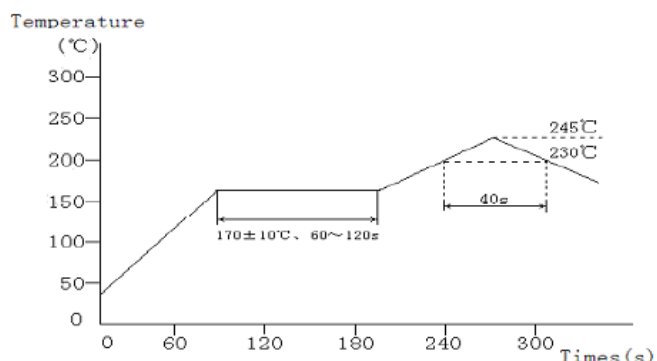


No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours.

Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

The reflow test profile may vary with the testing instruments.

### 11. Recommended Reflow Conditions



The recommended reflow profile is based on the testing instruments used. Solder ability will depend on the testing equipments, reflow conditions, testing method, etc. So it is necessary to make a confirmation of them when the reflow conditions are set up.

However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it.

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN100706DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN100706DH-1R0M	1.0 $\pm$ 20%	1.3	1.5	1.1	1.3	300	250	1MHz/1V
MPFN100706DH-1R5M	1.5 $\pm$ 20%	0.9	1.1	0.3	0.4	500	400	1MHz/1V
MPFN100706DH-2R6M	2.6 $\pm$ 20%	0.8	1.0	0.4	0.55	900	750	1MHz/1V

#### MPFN121006H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN121006H-2R2M	2.2 $\pm$ 20%	1.2	1.3	0.9	1.0	340	280	1MHz/1V

#### MPFN141206H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN141206H-R33M	0.33 $\pm$ 20%	4.1	4.4	4.1	4.4	32	26	1MHz/1V
MPFN141206H-R47M	0.47 $\pm$ 20%	3.1	3.4	2.8	3.0	45	37	1MHz/1V

#### MPFN141207H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN141207H-R24M	0.24 $\pm$ 20%	4.3	4.6	3.7	4.0	28	22	1MHz/1V
MPFN141207H-R47M	0.47 $\pm$ 20%	3.5	3.8	3.5	3.8	38	34	1MHz/1V

#### MPFN141208H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN141208H-R24M	0.24 $\pm$ 20%	5.7	6.0	3.8	4.1	27	22	1MHz/1V
MPFN141208H-R33M	0.33 $\pm$ 20%	5.0	5.3	3.7	4.0	28	23	1MHz/1V
MPFN141208H-R47M	0.47 $\pm$ 20%	4.3	4.6	3.5	3.8	35	29	1MHz/1V

#### MPFN160806H & MPFN160806DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN160806DH-R22M	0.22 $\pm$ 20%	4.4	4.7	3.5	3.8	43	35	1MHz/1V
MPFN160806H-R47M	0.47 $\pm$ 20%	3.0	3.3	2.0	2.3	82	66	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN160806H & MPFN160806DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN160806H-1R0M	1.0 $\pm$ 20%	2.2	2.4	1.6	1.8	200	180	1MHz/1V
MPFN160806H-2R2M	2.2 $\pm$ 20%	1.4	1.6	1.1	1.3	430	390	1MHz/1V

#### MPFN160808H & MPFN160808DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN160808H-R22M	0.22 $\pm$ 20%	5.2	5.5	3.1	3.4	40	33	1MHz/1V
MPFN160808H-R24M	0.24 $\pm$ 20%	5.0	5.3	3.0	3.3	41	34	1MHz/1V
MPFN160808H-R47M	0.47 $\pm$ 20%	3.8	4.1	2.3	2.6	100	80	1MHz/1V
MPFN160808DH45-R47M	0.47 $\pm$ 20%	3.7	4.0	3.4	3.8	45	40	1MHz/1V
MPFN160808H-R56M	0.56 $\pm$ 20%	3.7	4.0	1.9	2.2	110	85	1MHz/1V
MPFN160808H-R68M	0.68 $\pm$ 20%	3.0	3.3	1.9	2.1	130	110	1MHz/1V
MPFN160808H-1R0M	1.0 $\pm$ 20%	2.8	3.0	1.9	2.1	200	180	1MHz/1V
MPFN160808DH115-1R0M	1.0 $\pm$ 20%	2.1	2.3	1.9	2.1	115	105	1MHz/1V
MPFN160808H-1R5M	1.5 $\pm$ 20%	2.2	2.4	1.5	1.7	285	240	1MHz/1V
MPFN160808H-2R2M	2.2 $\pm$ 20%	1.3	1.5	1.2	1.4	260	220	1MHz/1V
MPFN160808H-3R3M	3.3 $\pm$ 20%	1.2	1.4	0.8	1.0	600	500	1MHz/1V
MPFN160808H-4R7M	4.7 $\pm$ 20%	1.0	1.2	0.8	1.0	700	585	1MHz/1V
MPFN160808H-100M	10 $\pm$ 20%	0.7	0.8	0.4	0.5	1600	1450	1MHz/1V

#### MPFN160810H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN160810H-R22M	0.22 $\pm$ 20%	6.2	6.5	4.2	4.5	35	28	1MHz/1V
MPFN160810H-R24M	0.24 $\pm$ 20%	6.0	6.3	4.1	4.4	35	28	1MHz/1V
MPFN160810H-R47M	0.47 $\pm$ 20%	4.5	4.8	3.7	4.0	80	65	1MHz/1V
MPFN160810H-R56M	0.56 $\pm$ 20%	3.9	4.2	3.2	3.5	95	70	1MHz/1V
MPFN160810H-R68M	0.68 $\pm$ 20%	3.3	3.6	2.7	3.0	115	90	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN201206H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201206H-1R0M	1.0 $\pm$ 20%	2.6	2.8	2.4	2.6	86	78	1MHz/1V
MPFN201206H-2R2M	2.2 $\pm$ 20%	1.6	1.8	1.5	1.7	230	215	1MHz/1V

#### MPFN201208H & MPFN201208DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201208H-R11M	0.11 $\pm$ 20%	9.2	9.5	6.7	7.0	12	10	1MHz/1V
MPFN201208H-R15M	0.15 $\pm$ 20%	7.2	7.5	6.5	6.8	13	11	1MHz/1V
MPFN201208H-R24M	0.24 $\pm$ 20%	6.2	6.5	6.2	6.5	23	18	1MHz/1V
MPFN201208H-R33M	0.33 $\pm$ 20%	4.9	5.2	2.9	3.2	45	33	1MHz/1V
MPFN201208H-R47M	0.47 $\pm$ 20%	4.7	5.0	2.8	3.1	50	34	1MHz/1V
MPFN201208DH28-R47M	0.47 $\pm$ 20%	4.9	5.2	4.4	4.7	28	24	1MHz/1V
MPFN201208H-R68M	0.68 $\pm$ 20%	3.9	4.2	3.4	3.7	60	50	1MHz/1V
MPFN201208H-1R0M	1.0 $\pm$ 20%	3.7	4.0	2.6	2.8	70	55	1MHz/1V
MPFN201208DH60-1R0M	1.0 $\pm$ 20%	3.0	3.2	3.0	3.2	60	52	1MHz/1V
MPFN201208H-1R5M	1.5 $\pm$ 20%	2.8	3.0	2.0	2.2	135	118	1MHz/1V
MPFN201208H-2R2M	2.2 $\pm$ 20%	2.4	2.6	1.7	1.9	185	160	1MHz/1V
MPFN201208H-3R3M	3.3 $\pm$ 20%	1.7	1.9	1.6	1.8	300	253	1MHz/1V
MPFN201208H-4R7M	4.7 $\pm$ 20%	1.4	1.6	1.5	1.7	325	285	1MHz/1V

#### MPFN201210H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201210H-R10M	0.10 $\pm$ 20%	8.2	8.5	7.2	7.5	13	8	1MHz/1V
MPFN201210H-R22M	0.22 $\pm$ 20%	7.0	7.3	6.8	7.1	22	16	1MHz/1V
MPFN201210H-R24M	0.24 $\pm$ 20%	6.9	7.2	6.7	7.0	23	17	1MHz/1V
MPFN201210H-R33M	0.33 $\pm$ 20%	6.2	6.5	5.2	5.5	32	24	1MHz/1V
MPFN201210H-R47M	0.47 $\pm$ 20%	5.2	5.5	4.4	4.7	36	29	1MHz/1V
MPFN201210H-R68M	0.68 $\pm$ 20%	4.7	5.0	4.0	4.3	43	37	1MHz/1V
MPFN201210H-1R0M	1.0 $\pm$ 20%	3.7	4.0	3.6	3.9	63	55	1MHz/1V
MPFN201210H-1R5M	1.5 $\pm$ 20%	2.9	3.2	2.8	3.1	85	76	1MHz/1V
MPFN201210H-2R2M	2.2 $\pm$ 20%	2.5	2.7	1.8	2.0	150	135	1MHz/1V
MPFN201210H-3R3M	3.3 $\pm$ 20%	2.0	2.2	1.6	1.8	260	210	1MHz/1V



## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN201210H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201210H-4R7M	4.7 $\pm$ 20%	1.6	1.8	1.4	1.6	300	275	1MHz/1V
MPFN201210H-6R8M	6.8 $\pm$ 20%	1.3	1.5	1.3	1.5	520	440	1MHz/1V
MPFN201210H-100M	10 $\pm$ 20%	1.0	1.2	0.9	1.1	660	600	1MHz/1V

#### MPFN201605H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201605H-R33M	0.33 $\pm$ 20%	3.7	4.0	3.7	4.0	41	34	1MHz/1V
MPFN201605H-R47M	0.47 $\pm$ 20%	3.2	3.5	3.3	3.5	53	44	1MHz/1V

#### MPFN201607H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201607H-2R2M	2.2 $\pm$ 20%	2.1	2.3	1.9	2.1	175	150	1MHz/1V

#### MPFN201608H & MPFN201608DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201608H-R22M	0.22 $\pm$ 20%	5.8	6.1	6.3	6.6	19	14	1MHz/1V
MPFN201608H-R24M	0.24 $\pm$ 20%	5.7	6.0	6.2	6.5	20	14	1MHz/1V
MPFN201608H-R33M	0.33 $\pm$ 20%	5.5	5.8	5.2	5.5	24	18	1MHz/1V
MPFN201608H-R47M	0.47 $\pm$ 20%	5.2	5.5	4.3	4.6	27	24	1MHz/1V
MPFN201608H-R68M	0.68 $\pm$ 20%	4.9	5.1	3.5	3.8	44	39	1MHz/1V
MPFN201608H-1R0M	1.0 $\pm$ 20%	3.0	3.3	3.3	3.6	60	53	1MHz/1V
MPFN201608DH52-1R0M	1.0 $\pm$ 20%	4.1	4.4	3.4	3.7	52	45	1MHz/1V
MPFN201608H-1R5M	1.5 $\pm$ 20%	2.8	3.0	2.8	3.1	85	73	1MHz/1V
MPFN201608H-2R2M	2.2 $\pm$ 20%	2.3	2.5	2.0	2.2	140	123	1MHz/1V
MPFN201608H-3R3M	3.3 $\pm$ 20%	1.9	2.1	1.6	1.8	220	200	1MHz/1V
MPFN201608H-4R7M	4.7 $\pm$ 20%	1.5	1.7	1.4	1.6	290	260	1MHz/1V
MPFN201608H-100M	10 $\pm$ 20%	0.9	1.0	0.9	1.0	800	690	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN201610H & MPFN201610DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201610H-R10M	0.10 $\pm$ 20%	8.7	9.0	8.2	8.5	12	7	1MHz/1V
MPFN201610H-R15M	0.15 $\pm$ 20%	8.4	8.7	7.3	7.6	14	8	1MHz/1V
MPFN201610H-R22M	0.22 $\pm$ 20%	7.9	8.2	6.6	6.9	18	11	1MHz/1V
MPFN201610H-R24M	0.24 $\pm$ 20%	7.7	8.0	6.5	6.8	19	12	1MHz/1V
MPFN201610H-R33M	0.33 $\pm$ 20%	6.7	7.0	5.4	5.7	22	17	1MHz/1V
MPFN201610H-R47M	0.47 $\pm$ 20%	6.0	6.3	5.2	5.5	25	22	1MHz/1V
MPFN201610H-R68M	0.68 $\pm$ 20%	4.9	5.2	4.3	4.6	32	25	1MHz/1V
MPFN201610H-1R0M	1.0 $\pm$ 20%	4.3	4.6	4.2	4.5	43	35	1MHz/1V
MPFN201610DH36-1R0M	1.0 $\pm$ 20%	4.4	4.7	4.3	4.6	36	31	1MHz/1V
MPFN201610H-1R5M	1.5 $\pm$ 20%	2.9	3.2	2.4	2.6	100	80	1MHz/1V
MPFN201610H-2R2M	2.2 $\pm$ 20%	2.8	3.0	2.3	2.5	130	120	1MHz/1V
MPFN201610H-3R3M	3.3 $\pm$ 20%	2.1	2.3	1.5	1.7	170	140	1MHz/1V
MPFN201610H-4R7M	4.7 $\pm$ 20%	1.8	2.0	1.4	1.6	220	190	1MHz/1V
MPFN201610H-100M	10 $\pm$ 20%	1.2	1.4	0.9	1.0	580	483	1MHz/1V

#### MPFN201612H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN201612H-R10M	0.10 $\pm$ 20%	12.0	13.0	11.0	12.0	6	4	1MHz/1V
MPFN201612H-R15M	0.15 $\pm$ 20%	11.0	12.0	9.5	10.0	10	7.5	1MHz/1V
MPFN201612H-R24M	0.24 $\pm$ 20%	8.7	9.2	8.6	9.1	11	9	1MHz/1V
MPFN201612H-R33M	0.33 $\pm$ 20%	7.5	7.8	7.4	7.7	15	10	1MHz/1V
MPFN201612H-R47M	0.47 $\pm$ 20%	6.4	6.7	6.4	6.7	17	13	1MHz/1V
MPFN201612H-R68M	0.68 $\pm$ 20%	5.7	6.0	5.7	6.0	23	19	1MHz/1V
MPFN201612H-1R0M	1.0 $\pm$ 20%	4.7	5.0	4.7	5.0	36	30	1MHz/1V
MPFN201612H-1R5M	1.5 $\pm$ 20%	3.7	4.0	3.7	4.0	50	40	1MHz/1V
MPFN201612H-2R2M	2.2 $\pm$ 20%	2.9	3.1	3.0	3.3	90	77	1MHz/1V
MPFN201612H-3R3M	3.3 $\pm$ 20%	2.5	2.7	2.2	2.4	165	135	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN252007H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN252007H-2R2M	2.2 $\pm$ 20%	2.4	2.6	2.1	2.3	90	78	1MHz/1V
MPFN252007H-100M	10 $\pm$ 20%	0.9	1.1	0.9	1.1	530	487	1MHz/1V

#### MPFN252008H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN252008H-R47M	0.47 $\pm$ 20%	5.7	6.0	6.2	6.5	27	22	1MHz/1V
MPFN252008H-1R0M	1.0 $\pm$ 20%	4.2	4.5	4.0	4.3	40	34	1MHz/1V
MPFN252008H-1R5M	1.5 $\pm$ 20%	3.2	3.5	3.1	3.4	75	64	1MHz/1V
MPFN252008H-2R2M	2.2 $\pm$ 20%	2.8	3.0	2.8	3.0	77	69	1MHz/1V
MPFN252008H-3R3M	3.3 $\pm$ 20%	2.3	2.5	2.3	2.5	180	150	1MHz/1V
MPFN252008H-4R7M	4.7 $\pm$ 20%	1.7	1.9	1.8	2.0	215	180	1MHz/1V
MPFN252008H-100M	10 $\pm$ 20%	0.9	1.1	1.2	1.4	600	500	1MHz/1V

#### MPFN252010H & MPFN252010DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN252010H-R22M	0.22 $\pm$ 20%	8.3	8.6	6.5	6.8	17	12	1MHz/1V
MPFN252010H-R24M	0.24 $\pm$ 20%	8.2	8.5	6.4	6.7	17.5	12	1MHz/1V
MPFN252010H-R33M	0.33 $\pm$ 20%	7.3	7.6	6.2	6.5	19	13	1MHz/1V
MPFN252010H-R47M	0.47 $\pm$ 20%	6.6	6.9	5.8	6.1	22	15	1MHz/1V
MPFN252010DH15-R47M	0.47 $\pm$ 20%	6.3	6.6	6.2	6.5	15	13	1MHz/1V
MPFN252010H-R68M	0.68 $\pm$ 20%	5.6	5.9	5.3	5.6	27	23	1MHz/1V
MPFN252010H-1R0M	1.0 $\pm$ 20%	5.0	5.3	4.2	4.5	30	25	1MHz/1V
MPFN252010H-1R5M	1.5 $\pm$ 20%	4.0	4.3	3.1	3.4	55	45	1MHz/1V
MPFN252010H-2R2M	2.2 $\pm$ 20%	3.0	3.3	2.2	2.4	70	62	1MHz/1V
MPFN252010H-3R3M	3.3 $\pm$ 20%	2.6	2.8	2.3	2.5	100	86	1MHz/1V
MPFN252010H-4R7M	4.7 $\pm$ 20%	2.4	2.6	1.8	2.0	180	160	1MHz/1V
MPFN252010H-6R8M	6.8 $\pm$ 20%	2.2	2.4	1.4	1.6	320	270	1MHz/1V
MPFN252010H-100M	10 $\pm$ 20%	1.35	1.55	0.85	1.05	560	500	1MHz/1V
MPFN252010H-220M	22 $\pm$ 20%	0.9	1.1	0.65	0.85	1300	1100	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN252012H & MPFN252012H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN252012H-R10M	0.10 $\pm$ 20%	12.5	13.5	11.0	12.0	10	6	1MHz/1V
MPFN252012H-R15M	0.15 $\pm$ 20%	12.0	13.0	10.5	11.5	11	7	1MHz/1V
MPFN252012H-R22M	0.22 $\pm$ 20%	9.3	9.6	7.9	8.2	14	9	1MHz/1V
MPFN252012H-R24M	0.24 $\pm$ 20%	9.0	9.3	7.7	8.0	15	10	1MHz/1V
MPFN252012H-R33M	0.33 $\pm$ 20%	8.0	8.3	6.5	6.8	17	11	1MHz/1V
MPFN252012H-R47M	0.47 $\pm$ 20%	7.2	7.5	6.2	6.5	19	13	1MHz/1V
MPFN252012H-R68M	0.68 $\pm$ 20%	6.2	6.5	6.0	6.3	23	17	1MHz/1V
MPFN252012H-R82M	0.82 $\pm$ 20%	6.2	6.5	5.5	5.8	24	19	1MHz/1V
MPFN252012H-1R0M	1.0 $\pm$ 20%	5.3	5.6	3.7	4.0	42	35	1MHz/1V
MPFN252012DH22-1R0M	1.0 $\pm$ 20%	6.3	6.5	4.9	5.2	22	16	1MHz/1V
MPFN252012H-1R2M	1.2 $\pm$ 20%	4.2	4.5	3.5	3.8	45	40	1MHz/1V
MPFN252012H-1R5M	1.5 $\pm$ 20%	4.2	4.5	3.4	3.7	50	44	1MHz/1V
MPFN252012DH32-1R5M	1.5 $\pm$ 20%	4.4	4.7	4.3	4.6	32	27	1MHz/1V
MPFN252012H-2R2M	2.2 $\pm$ 20%	3.5	3.8	2.4	2.6	75	55	1MHz/1V
MPFN252012H-3R3M	3.3 $\pm$ 20%	2.8	3.0	2.1	2.3	97	80	1MHz/1V
MPFN252012H-4R7M	4.7 $\pm$ 20%	2.2	2.4	1.6	1.8	170	150	1MHz/1V
MPFN252012H-6R8M	6.8 $\pm$ 20%	1.8	2.0	1.4	1.6	270	245	1MHz/1V
MPFN252012H-100M	10 $\pm$ 20%	1.4	1.6	1.0	1.2	400	330	1MHz/1V

#### MPFN322510H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN322510H-R33M	0.33 $\pm$ 20%	8.0	8.3	8.0	8.3	15	11	1MHz/1V
MPFN322510H-R47M	0.47 $\pm$ 20%	8.0	8.3	6.1	6.4	22	17	1MHz/1V
MPFN322510H-R68M	0.68 $\pm$ 20%	7.2	7.5	5.9	6.2	28	22	1MHz/1V
MPFN322510H-1R0M	1.0 $\pm$ 20%	5.7	6.0	5.1	5.4	30	25	1MHz/1V
MPFN322510H-1R5M	1.5 $\pm$ 20%	4.7	5.0	3.7	4.0	42	34	1MHz/1V
MPFN322510H-2R2M	2.2 $\pm$ 20%	3.7	4.0	3.4	3.7	66	55	1MHz/1V
MPFN322510H-3R3M	3.3 $\pm$ 20%	3.4	3.7	2.5	2.7	120	105	1MHz/1V
MPFN322510H-4R7M	4.7 $\pm$ 20%	2.6	2.8	2.1	2.3	140	125	1MHz/1V
MPFN322510H-6R8M	6.8 $\pm$ 20%	2.2	2.4	1.7	1.9	320	290	1MHz/1V
MPFN322510H-100M	10 $\pm$ 20%	2.0	2.2	2.0	2.2	365	325	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN322512H & MPFN322512DH Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN322512H-R10M	0.10 $\pm$ 20%	17.0	18.0	11.0	12.0	7	5.2	1MHz/1V
MPFN322512H-R22M	0.22 $\pm$ 20%	11.2	11.5	8.9	9.2	10	6.6	1MHz/1V
MPFN322512H-R24M	0.24 $\pm$ 20%	10.7	11.0	8.7	9.0	12	7	1MHz/1V
MPFN322512H-R33M	0.33 $\pm$ 20%	9.2	9.5	8.2	8.5	14	9	1MHz/1V
MPFN322512H-R47M	0.47 $\pm$ 20%	8.3	8.6	7.2	7.5	19	14	1MHz/1V
MPFN322512DH14-R47M	0.47 $\pm$ 20%	8.3	8.6	7.2	7.5	14	11	1MHz/1V
MPFN322512H-R68M	0.68 $\pm$ 20%	7.8	8.1	7.0	7.3	23	18	1MHz/1V
MPFN322512DH15-R68M	0.68 $\pm$ 20%	7.7	8.0	6.7	7.0	15	12	1MHz/1V
MPFN322512H-1R0M	1.0 $\pm$ 20%	6.3	6.6	5.0	5.3	30	26	1MHz/1V
MPFN322512DH21-1R0M	1.0 $\pm$ 20%	7.4	7.7	5.2	5.5	21	18	1MHz/1V
MPFN322512H-1R5M	1.5 $\pm$ 20%	4.8	5.1	4.4	4.7	44	37	1MHz/1V
MPFN322512H-2R2M	2.2 $\pm$ 20%	4.3	4.6	3.3	3.6	70	58	1MHz/1V
MPFN322512DH50-2R2M	2.2 $\pm$ 20%	4.7	5.0	3.5	3.8	50	42	1MHz/1V
MPFN322512H-3R3M	3.3 $\pm$ 20%	3.4	3.7	2.7	2.9	95	75	1MHz/1V
MPFN322512H-4R7M	4.7 $\pm$ 20%	2.7	2.9	2.1	2.3	135	115	1MHz/1V
MPFN322512H-6R8M	6.8 $\pm$ 20%	2.6	2.8	2.0	2.2	210	177	1MHz/1V
MPFN322512H-100M	10 $\pm$ 20%	2.1	2.3	2.0	2.2	230	210	1MHz/1V

#### MPFN322520H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR (m $\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN322520H-R33M	0.33 $\pm$ 20%	14.5	15.5	9.0	9.5	9	7.5	1MHz/1V
MPFN322520H-R47M	0.47 $\pm$ 20%	14.0	15.0	8.5	9.0	10.5	9	1MHz/1V
MPFN322520H-R68M	0.68 $\pm$ 20%	12.0	13.0	8.0	8.5	14.5	12.5	1MHz/1V
MPFN322520H-1R0M	1.0 $\pm$ 20%	8.5	9.0	7.7	8.2	17.5	15	1MHz/1V
MPFN322520H-1R5M	1.5 $\pm$ 20%	6.3	6.8	6.0	6.5	25	22	1MHz/1V
MPFN322520H-2R2M	2.2 $\pm$ 20%	6.0	6.5	4.9	5.4	43	36	1MHz/1V
MPFN322520H-3R3M	3.3 $\pm$ 20%	4.0	4.5	4.0	4.5	60	55	1MHz/1V
MPFN322520H-4R7M	4.7 $\pm$ 20%	3.5	4.0	3.0	3.5	94	81	1MHz/1V
MPFN322520H-6R8M	6.8 $\pm$ 20%	3.5	3.8	2.5	2.8	125	101	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN303010H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN303010H-6R8M	6.8 $\pm$ 20%	1.6	1.8	1.9	2.1	270	225	1MHz/1V
MPFN303010H-100M	10 $\pm$ 20%	1.4	1.6	1.8	2.0	360	320	1MHz/1V

#### MPFN303012H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN303012H-1R0M	1.0 $\pm$ 20%	5.5	6.0	5.0	5.5	27	23	1MHz/1V
MPFN303012H-4R7M	4.7 $\pm$ 20%	2.7	3.0	2.7	3.0	120	100	1MHz/1V
MPFN303012H-100M	10 $\pm$ 20%	2.1	2.3	2.1	2.3	220	192	1MHz/1V
MPFN303012H-150M	15 $\pm$ 20%	1.7	1.9	1.4	1.6	380	345	1MHz/1V

#### MPFN303015H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN303015H-R15M	0.15 $\pm$ 20%	15.0	16.0	10.0	11.0	6	5	1MHz/1V
MPFN303015H-R47M	0.47 $\pm$ 20%	9.0	10.0	7.5	8.0	11	9	1MHz/1V
MPFN303015H-1R0M	1.0 $\pm$ 20%	6.5	7.0	5.0	5.5	22	18	1MHz/1V
MPFN303015H-2R2M	2.2 $\pm$ 20%	4.5	5.0	3.7	4.0	50	42	1MHz/1V
MPFN303015H-4R7M	4.7 $\pm$ 20%	3.7	4.0	2.7	3.0	104	87	1MHz/1V
MPFN303015H-6R8M	6.8 $\pm$ 20%	3.2	3.5	1.8	2.0	180	160	1MHz/1V
MPFN303015H-100M	10 $\pm$ 20%	2.6	2.8	1.3	1.5	215	185	1MHz/1V
MPFN303015H-220M	22 $\pm$ 20%	1.4	1.6	1.0	1.2	700	580	1MHz/1V

#### MPFN303018H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN303018H-R22M	0.22 $\pm$ 20%	15.0	16.0	9.5	10.0	7	5.5	1MHz/1V
MPFN303018H-R47M	0.47 $\pm$ 20%	10.0	11.0	8.5	9.0	10	8	1MHz/1V
MPFN303018H-1R0M	1.0 $\pm$ 20%	6.6	6.8	6.1	6.3	21	15	1MHz/1V
MPFN303018H-1R5M	1.5 $\pm$ 20%	6.8	7.0	6.6	6.8	26	20	1MHz/1V
MPFN303018H-4R7M	4.7 $\pm$ 20%	3.9	4.2	3.1	3.4	87	72	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN303020H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN303020H-R10M	0.10 $\pm$ 20%	19.0	20.0	12.0	13.0	5.5	4	1MHz/1V
MPFN303020H-R15M	0.15 $\pm$ 20%	17.0	18.0	12.0	13.0	5	4	1MHz/1V
MPFN303020H-R33M	0.33 $\pm$ 20%	16.0	17.0	9.5	10.0	9	7.5	1MHz/1V
MPFN303020H-R50M	0.50 $\pm$ 20%	14.0	15.0	8.5	9.0	12	9	1MHz/1V
MPFN303020H-R68M	0.68 $\pm$ 20%	12.0	13.0	8.0	8.5	16	13	1MHz/1V
MPFN303020H-1R0M	1.0 $\pm$ 20%	7.5	8.0	6.0	6.5	20	14	1MHz/1V
MPFN303020H-1R5M	1.5 $\pm$ 20%	6.5	7.0	5.8	6.3	25	19	1MHz/1V
MPFN303020H-2R2M	2.2 $\pm$ 20%	5.5	6.0	4.2	4.7	45	37	1MHz/1V
MPFN303020H-3R3M	3.3 $\pm$ 20%	5.4	5.9	4.0	4.5	63	52	1MHz/1V
MPFN303020H-4R7M	4.7 $\pm$ 20%	4.3	4.8	3.7	4.2	73	60	1MHz/1V
MPFN303020H-6R8M	6.8 $\pm$ 20%	4.0	4.5	2.9	3.2	135	107	1MHz/1V
MPFN303020H-100M	10 $\pm$ 20%	3.5	3.8	2.2	2.5	160	135	1MHz/1V
MPFN303020H-150M	15 $\pm$ 20%	2.4	2.6	1.6	1.8	260	235	1MHz/1V

#### MPFN404010H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN404010H-100M	10 $\pm$ 20%	2.0	2.2	2.3	2.5	280	220	1MHz/1V

#### MPFN404012H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN404012H-R47M	0.47 $\pm$ 20%	11.0	12.0	8.5	9.0	14	11.5	1MHz/1V
MPFN404012H-R68M	0.68 $\pm$ 20%	9.5	10.0	8.0	8.5	18	15	1MHz/1V
MPFN404012H-1R0M	1.0 $\pm$ 20%	10.0	11.0	5.8	6.3	25	21	1MHz/1V
MPFN404012H-1R5M	1.5 $\pm$ 20%	7.5	8.0	5.5	6.0	34.5	29	1MHz/1V
MPFN404012H-2R2M	2.2 $\pm$ 20%	6.0	6.5	4.5	5.0	55	45	1MHz/1V
MPFN404012H-3R3M	3.3 $\pm$ 20%	5.0	5.5	4.0	4.5	80	67	1MHz/1V
MPFN404012H-4R7M	4.7 $\pm$ 20%	4.5	5.0	3.2	3.5	110	90	1MHz/1V
MPFN404012H-5R6M	5.6 $\pm$ 20%	4.0	4.5	2.7	3.0	140	116	1MHz/1V
MPFN404012H-6R8M	6.8 $\pm$ 20%	3.5	3.8	2.5	2.8	160	132	1MHz/1V
MPFN404012H-100M	10 $\pm$ 20%	2.5	2.8	2.2	2.5	235	200	1MHz/1V

## SMD Molding Power Inductor (Flat Wire)

### Electrical Characteristics

#### MPFN404020H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN404020H-R47M	0.47 $\pm$ 20%	15.0	16.0	8.0	8.5	8.5	7	1MHz/1V
MPFN404020H-1R0M	1.0 $\pm$ 20%	11.5	12.5	6.0	6.5	14.5	12	1MHz/1V
MPFN404020H-1R5M	1.5 $\pm$ 20%	9.5	10.5	5.5	6.0	22	18	1MHz/1V
MPFN404020H-2R2M	2.2 $\pm$ 20%	9.0	9.5	5.0	5.5	36	30	1MHz/1V
MPFN404020H-4R7M	4.7 $\pm$ 20%	5.8	6.3	4.5	5.0	58	47	1MHz/1V
MPFN404020H-6R8M	6.8 $\pm$ 20%	4.9	5.4	3.2	3.7	105	90	1MHz/1V
MPFN404020H-100M	10 $\pm$ 20%	4.4	4.9	2.9	3.4	135	113	1MHz/1V
MPFN404020H-150M	15 $\pm$ 20%	3.3	3.5	1.8	2.3	250	210	1MHz/1V
MPFN404020H-220M	22 $\pm$ 20%	2.4	2.9	1.5	1.8	330	275	1MHz/1V

#### MPFN404030H Type

Part No.	Inductance ( $\mu$ H)	Isat (A)		Irms (A)		DCR ( $m\Omega$ )		Test Frequency
		Max	Typ	Max	Typ	Max	Typ	
MPFN404030H-R68M	0.68 $\pm$ 20%	16.0	17.0	9.0	9.5	10	8.3	1MHz/1V
MPFN404030H-1R0M	1.0 $\pm$ 20%	14.5	15.5	8.0	8.5	12	10	1MHz/1V
MPFN404030H-1R5M	1.5 $\pm$ 20%	11.5	12.5	6.0	6.5	18	15	1MHz/1V
MPFN404030H-4R7M	4.7 $\pm$ 20%	6.5	7.0	3.8	4.3	46	41	1MHz/1V
MPFN404030H-6R8M	6.8 $\pm$ 20%	5.8	6.3	3.7	4.2	62	51	1MHz/1V

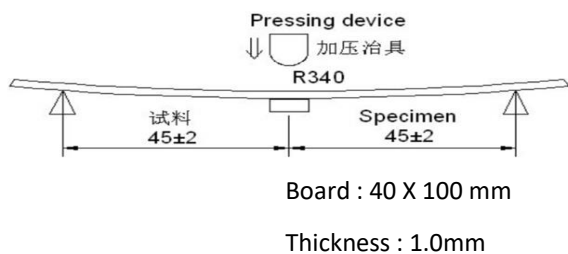
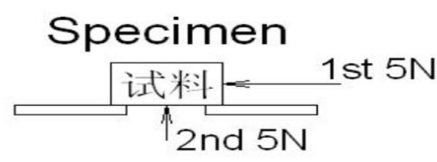
#### Note

- 1.Isat : DC Saturation Current that will cause initial inductance to drop approximately 30% max.
- 2.Irms : DC Current that will cause an approximate  $\Delta T$  of 40 °C
- 3.Test Instrument : L (WK6500B), RDC(HIOKI RM3542A), Isat & Irms (WK3260B+WK3265B) or equivalent.



## SMD Molding Power Inductor (Flat Wire)

### Reliability and Test Conditions

ITEM	Conditions	Specification
Temperature Drift	To be measured in the range of -40°C to 125°C.	Inductance temperature coefficient 2000 ppm/°C or less
Storage Temperature	With taping.	-40°C to 125°C
Operating Temperature	Including self temperature rise.	-40°C to 125°C
Bending Test	<p>Apply pressure gradually in the direction of the arrow at a rate of about 0.5mm/s until bent depth reaches 3mm and hold for 30±5s.</p>  <p style="text-align: center;">Board : 40 X 100 mm Thickness : 1.0mm</p>	Change from an initial value L : within±10%
Adhesion Strength	<p>A static load using a R0.5 pressing tool shall be applied the arrow and to the body of the specimen in the direction of the arrow and shall be hold for 60±5s. Measure after removing pressure.</p> 	Change from an initial value L : within±10%
Vibration	<p>The specimen shall be subjected to a vibration of 1.5mm amplitude, sweep frequency 10~55Hz (10Hz to 55Hz to 10Hz in a period of one minute) for 1 h in each of 3(X,Y,Z) axes.</p>	Change from an initial value L : within±10%
Mechanical Shock	<p>Peak acceleration: 981 m/S<sup>2</sup> Duration of pulse : 6ms 3 times in each of 3(X,Y,Z)axes. The specimen must be fixed on test board. Three successive shock shall be applied in the perpendicular direction of each surface of the specimen.</p>	Change from an initial value L : within±10%

## SMD Molding Power Inductor (Flat Wire)

### Reliability and Test Conditions

ITEM	Conditions	Specification
Free fall Test	<p>The specimen must be fixed on test board.</p> <p>It must be equipped with instruments of which weight is 500g.</p> <p>Then it shall be fallen freely from 1m height to rigid wood 3 times in each of three axes.</p>	<p>Change from an initial value</p> <p>L : within±10%</p>
Solderability	<p>Terminals shall be immersed for 5 to 10 seconds in flux at room temperature.</p> <p>Dip sample into solder bath containing molten solder at 245±5°C for 3±0.5 seconds.</p>	<p>New solder shall cover 90% minimum of the surface immersed.</p>
Dielectric Strength	<p>100V DC shall be applied for 60s between the terminal and the core.</p>	<p>Without damage.</p>
Resistance to Soldering Heat	<p>Test method : Reflow soldering method</p> <p>Preheat 150~180°C 90 ± 30s</p> <p>Peak temp 250(+ 5,-0)°C (230°C min ,30 ± 10s)</p> <p>The specimen shall be subjected to the reflow process under the above condition 2 times.</p> <p>Test board shall be 0.8mm thick.</p> <p>Base material shall be glass epoxy resin.</p> <p>Measurement</p> <p>The specimen shall be stored at standard atmospheric conditions for 1h in prior to the measurement.</p>	<p>Change from an initial value</p> <p>L : within±10%</p>
Insulation resistance	<p>100V DC shall be applied between the terminal and the core.</p>	<p>100mΩ or more.</p>
Low temperature	<p>The specimen shall be stored at a temperature of -40 ± 3°C for 500 ± 12h.</p> <p>Then it shall be stabilized under standard atmospheric conditions for 1h before measurement.</p> <p>Measurement shall be made within 1h.</p>	<p>Change from an initial value</p> <p>L : within±10%</p>

## SMD Molding Power Inductor (Flat Wire)

### Reliability and Test Conditions

ITEM	Conditions	Specification
Dry heat	The specimen shall be stored at a temperature of $125 \pm 2^{\circ}\text{C}$ for $500 \pm 12\text{h}$ . Then it shall be stabilized under standard atmospheric conditions for 1h before measurement. Measurement shall be made within 1h.	Change from an initial value L : within $\pm 10\%$
Dump heat	The specimen shall be stored at a temperature of $60 \pm 2^{\circ}\text{C}$ with relative humidity of 90 ~ 95% for $500 \pm 2\text{h}$ . Then it shall be stabilized under standard atmospheric conditions for 1h before measurement. Measurement shall be made within 1h.	Change from an initial value L : within $\pm 10\%$
Temperature cycle	The specimen shall be subjected to 500 continuous cycles of temperature change of $-40^{\circ}\text{C}$ for 30 min and $125^{\circ}\text{C}$ for 30 min with the transit period of 2min or less. Then it shall be stabilized under standard atmospheric conditions for 1h before measurement. Measurement shall be made within 1h.	Change from an initial value L : within $\pm 10\%$

### Standard atmospheric conditions

Unless otherwise specified, the standard range of atmospheric conditions in making measurements and test as follows.

1. Ambient temperature :  $5^{\circ}\text{C}$  to  $35^{\circ}\text{C}$
2. Relative humidity : 45% to 85%
3. Air pressure : 86kPa to 106kPa

If more strict measurement is required, measurement shall be made within following limits.

1. Ambient temperature :  $20 \pm 2^{\circ}\text{C}$
2. Relative humidity:  $65 \pm 5\%$
3. Air pressure: 86kPa to 106kPa

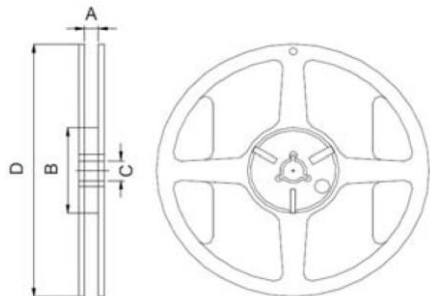
### Standard atmospheric conditions

We confirm that our products and our production process accord with "rule of RoHS".

All mater used in this product are registered material under the law concerning the examination and Regulation of Manufacture of Chemical Substances.

## SMD Molding Power Inductor (Flat Wire)

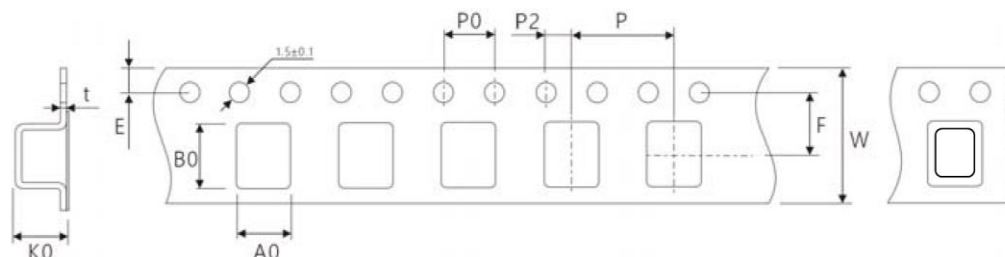
### 1. Reel Dimension(m/m)



#### Dimensions(mm)

Item	A	B	C	D
7"x8	8.5 ± 1	58 ± 1	13 ± 1	178 ± 1
7"x12	12.5 ± 1	58 ± 1	13 ± 1	178 ± 1

### 2. Taping Dimension(m/m)



#### Tape Dimension / 8 mm

Item	W	A0	B0	K0	E	F	P	P0	D	t
MPFN100706H	8.0 ± 0.3	0.90 ± 0.1	1.20 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.23 ± 0.05
MPFN121006H	8.0 ± 0.3	1.30 ± 0.1	1.50 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.23 ± 0.05
MPFN141206H	8.0 ± 0.3	1.45 ± 0.1	1.70 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN141207H	8.0 ± 0.3	1.45 ± 0.1	1.70 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN141208H	8.0 ± 0.3	1.45 ± 0.1	1.70 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN160806H	8.0 ± 0.3	1.05 ± 0.1	1.85 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN160808H	8.0 ± 0.3	1.05 ± 0.1	1.85 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN160810H	8.0 ± 0.3	1.05 ± 0.1	1.85 ± 0.1	1.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201206H	8.0 ± 0.3	1.45 ± 0.1	2.25 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201208H	8.0 ± 0.3	1.45 ± 0.1	2.25 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201210H	8.0 ± 0.3	1.45 ± 0.1	2.25 ± 0.1	1.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201607H	8.0 ± 0.3	1.85 ± 0.1	2.25 ± 0.1	0.80 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201608H	8.0 ± 0.3	1.85 ± 0.1	2.25 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201610H	8.0 ± 0.3	1.85 ± 0.1	2.25 ± 0.1	1.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN201612H	8.0 ± 0.3	1.85 ± 0.1	2.25 ± 0.1	1.35 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05

## SMD Molding Power Inductor (Flat Wire)

### 2.Taping Dimension(m/m)

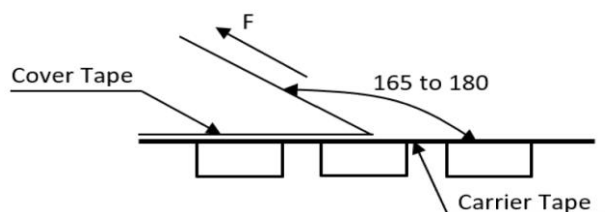
#### Tape Dimension / 8 mm

Item	W	A0	B0	K0	E	F	P	P0	D	t
MPFN252007H	8.0 ± 0.3	2.40 ± 0.1	2.85 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN252008H	8.0 ± 0.3	2.40 ± 0.1	2.85 ± 0.1	1.00 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN252010H	8.0 ± 0.3	2.40 ± 0.1	2.85 ± 0.1	1.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN252012H	8.0 ± 0.3	2.40 ± 0.1	2.85 ± 0.1	1.35 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN322510H	8.0 ± 0.3	2.90 ± 0.1	3.50 ± 0.1	1.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN322512H	8.0 ± 0.3	2.90 ± 0.1	3.50 ± 0.1	1.40 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN322520H	8.0 ± 0.3	2.90 ± 0.1	3.50 ± 0.1	2.20 ± 0.1	1.75 ± 0.1	3.5 ± 0.1	4.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.28 ± 0.05

#### Tape Dimension / 12 mm

Item	W	A0	B0	K0	E	F	P	P0	D	t
MPFN303010H	12 ± 0.3	3.40 ± 0.1	3.40 ± 0.1	1.40 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN303012H	12 ± 0.3	3.40 ± 0.1	3.40 ± 0.1	1.40 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.25 ± 0.05
MPFN303015H	12 ± 0.3	3.40 ± 0.1	3.40 ± 0.1	1.70 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05
MPFN303018H	12 ± 0.3	3.40 ± 0.1	3.40 ± 0.1	2.00 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05
MPFN303020H	12 ± 0.3	3.40 ± 0.1	3.40 ± 0.1	2.20 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05
MPFN404012H	12 ± 0.3	4.40 ± 0.1	4.40 ± 0.1	1.40 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05
MPFN404020H	12 ± 0.3	4.40 ± 0.1	4.40 ± 0.1	2.40 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05
MPFN404030H	12 ± 0.3	4.40 ± 0.1	4.40 ± 0.1	3.40 ± 0.1	1.75 ± 0.1	5.5 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1	0.35 ± 0.05

### 3.Taping Off Force



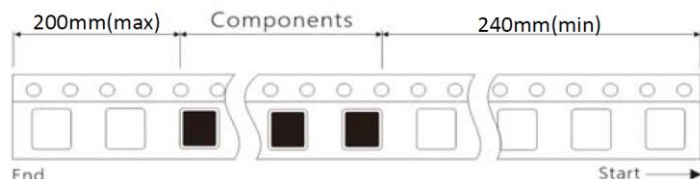
Room Temp. (°C)	Room Humidity (%)	Room atrn (hPa)	Teaming Speed (mm/min)
5~35	45~85	860~1060	300

#### Note

In the arrow direciton under the following condition.

## SMD Molding Power Inductor (Flat Wire)

### 4. Taping Method



### 5. Packing Carton

Item	Reel Packing	Inner Box Packing	Carton Packing
MPFN100706H	5,000 PCS/Reel	15,000 PCS/Reel	150,000 PCS/Reel
MPFN121006H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN141206H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN141207H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN141208H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN160806H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN160808H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN160810H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201206H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201208H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201210H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201607H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201608H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201610H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN201612H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN252007H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN252008H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN252010H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN252012H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN322510H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN322512H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN322520H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN303010H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN303012H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN303015H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN303018H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN303020H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN404012H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN404020H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel
MPFN404030H	3,000 PCS/Reel	12,000 PCS/Reel	120,000 PCS/Reel

## SMD Molding Power Inductor (Flat Wire)

### **6.Storage Conditions**

1. Temperature and humidity conditions: Less than 40°C and 70% RH.
2. Recommended products should be used within 12 months from the time of delivery.
3. For those parts which passed more than 6 months shall be checked solderability before it is used.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

### **Note**

1. Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.