

Multilayer Chip Power Inductor –MPHM Series



Operating Temp ◆ -55°C ~+125°C (Including self-heating)

Features

- ◆ With mark on body
- ◆ No cross coupling due to magnetic shielded
- ◆ Monolithic structure for high reliability
- ◆ Excellent solderability and high heat resistance

Applications

- ◆ Bluetooth modules and TWS earphones

Product Identification

1

MPHM

2

160809

3

S

4

1R0

5

6

T

7

1

Type

MPHM

Chip Power Inductor

2

External Dimensions (L×W) (mm)

160809

1.6×1.0×1.0

3

Feature Type

S

Standard

4

Nominal Inductance

Example	Nominal Value
1R0	1.0μH
4R7	4.7μH

5

Inductance Tolerance

M	±20%
N	±30%

6

Packing

T

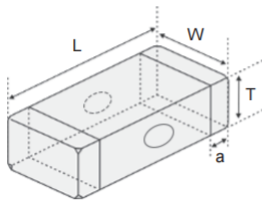
Tape & Reel

7

Design Code

Design Code

Shape and Dimensions



Unit mm [inch]				
Type	L	W	T	a
160809	1.60±0.15 [.063±.006]	1.0±0.15 [.039±.006]	1.0±0.15 [.039±.006]	0.3±0.2 [.012±.008]

Specifications

MPHM160809_Y02 TYPE

Part Number	Inductance	L Test Freq.	DC Resistance		Min. Self-resonant Frequency	Saturation Current		Heat Rating Current Max.	Thickness
Units	μH	MHz	Ω		MHz	mA		mA	mm [inch]
Symbol	L	Freq.	DCR		S.R.F	Isat		Irms	T
			Max.	Typ.		Max.	Typ.		
MPHM160809S1R0 □ TY02	1.0	1	0.190	0.170	110	750	950	1100	1.0±0.15 [.039±.006]
MPHM160809S2R2 □ TY02	2.2	1	0.350	0.280	70	480	550	900	
MPHM160809S4R7 □ TY02	4.7	1	0.420	0.525	55	320	360	700	
MPHM160809S100 □ TY02	10	1	1.400	1.150	25	220	240	280	

MPHM160809_Y03 TYPE

Part Number	Inductance	L Test Freq.	DC Resistance		Min. Self-resonant Frequency	Saturation Current		Heat Rating Current Max.	Thickness
Units	μH	MHz	Ω		MHz	mA		mA	mm [inch]
Symbol	L	Freq.	DCR		S.R.F	Isat		Irms	T
			Max.	Typ.		Max.	Typ.		
MPHM160809S2R2 □ TY03	2.2	1	0.550	0.450	70	800	1100	500	1.0±0.15 [.039±.006]
MPHM160809S4R7 □ TY03	4.7	1	1.050	0.900	55	550	750	350	
MPHM160809S100 □ TY03	10	1	1.800	1.500	30	320	400	350	

※ □: Please specify the inductance tolerance code (M=±20%, N=±30%);

※ Rated current: Isat or Irms, whichever is smaller;

※ Isat: DC current at which the inductance drops approximate 30% from its value without current;

※ Irms: DC current that causes the temperature rise (ΔT=40°C) from 20°C ambient.