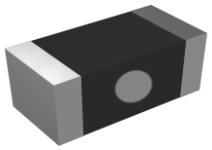
Multilayer Chip Power Inductor – MPHM Series



Operating Temp. : -55℃~+125℃ (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

MPHM	160809	S	1R0	□	T	□□□
①	②	③	④	⑤	⑥	⑦

①

Type	
MPHM	Chip Power Inductor

②

External Dimensions (L×W×H) (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%

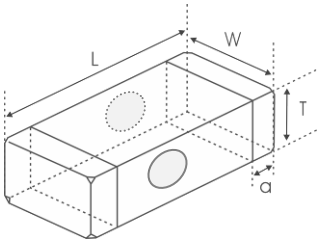
⑥

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]

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SPECIFICATION

MPHM160809_Y01 TYPE

Part Number	Inductance	L Test Freq. L	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☐TY01	1.0	1	0.237	0.190	110	700	750	750	1.0±0.15 [.039±.006]
MPHM160809S2R2☐TY01	2.2	1	0.500	0.400	70	480	520	550	
MPHM160809S4R7☐TY01	4.7	1	0.750	0.600	55	320	360	450	
MPHM160809S6R8☐TY01	6.8	1	1.150	0.900	40	250	300	350	
MPHM160809S100☐TY01	10	1	1.500	1.200	30	220	240	280	

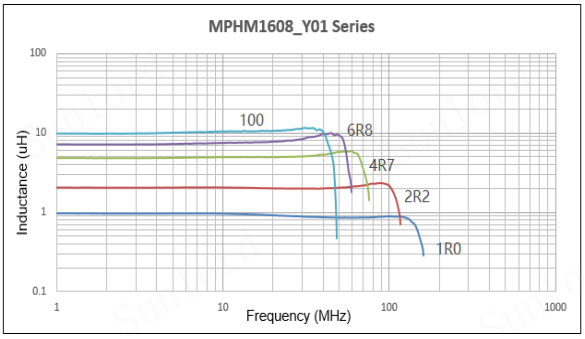
MPHM160809_Y02 TYPE

Part Number	Inductance	L Test Freq. L	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	

※☐: 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 (△T =40°C) from 20°C ambient.

TYPICAL ELECTRICAL CHARACTERISTICS

Inductance vs. Frequency Characteristics



Inductance vs. DC Current Characteristics