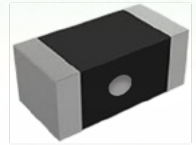


# Multilayer Chip Power Inductor - MPHM Series



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

## FEATURES

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

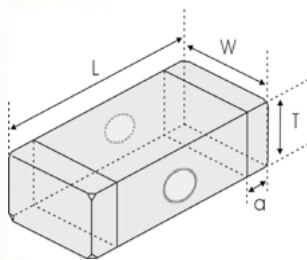
## APPLICATIONS

- Bluetooth modules and TWS earphones

## PRODUCT IDENTIFICATION

<u>MPHM</u>	<u>160809</u>	<u>S</u>	<u>R47</u>	<u>M</u>	<u>T</u>																														
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## SHAPE AND DIMENSIONS



Unit: mm [inch]

Type	L	W	T	a
160809	1.60±0.15 [.063±.006]	0.8±0.15 [.031±.006]	0.8±0.1 [.031±.004]	0.3±0.2 [.012±.008]

## SPECIFICATIONS

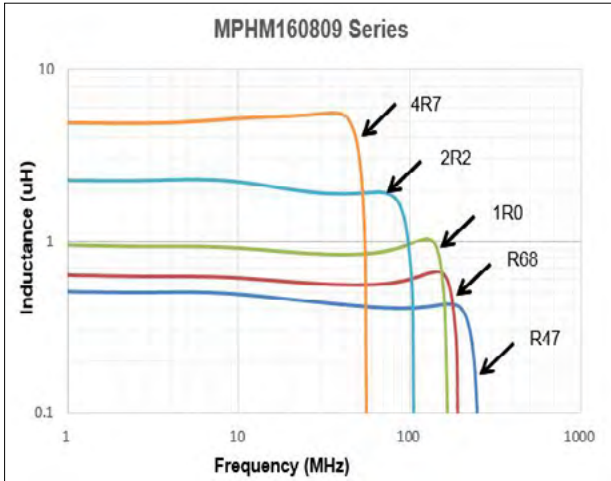
### MPHM160809 TYPE

Part Number	Inductance	L Test Freq.	DC Resistance		Min. Self-resonant Frequency	Saturation Current		Heat Rating Current Max.	Thickness
Units	$\mu\text{H}$	MHz	$\Omega$		MHz	A		A	mm [inch]
Symbol	L	Freq.	DCR		S.R.F	Isat		I <sub>rms</sub>	T
			Max.	Typ.		Max.	Typ.		
MPHM160809SR47 □ T	0.47	1	0.19	0.15	180	1.00	1.20	1.10	0.8±0.1 [.031±.004]
MPHM160809SR68 □ T	0.68	1	0.23	0.18	160	0.95	1.10	1.15	
MPHM160809S1R0 □ T	1.0	1	0.25	0.20	125	0.65	0.80	1.00	
MPHM160809S1R5 □ T	1.5	1	0.29	0.23	100	0.42	0.50	0.90	
MPHM160809S1R8 □ T	1.8	1	0.325	0.26	100	0.30	0.50	0.80	
MPHM160809S2R2 □ T	2.2	1	0.38	0.30	80	0.25	0.30	0.85	
MPHM160809S2R7 □ T	2.7	1	0.43	0.34	90	0.18	0.22	0.75	
MPHM160809S3R3 □ T	3.3	1	0.50	0.50	100	0.13	0.15	0.70	
MPHM160809S4R7 □ T	4.7	1	0.50	0.40	65	0.07	0.08	0.70	

- ※ □ : Please specify the inductance tolerance code (M=±20%, N=±30%);
- ※ Rated current: Isat or I<sub>rms</sub>, whichever is smaller;
- ※ Isat: DC current at which the inductance drops approximate 30% from its value without current;
- ※ I<sub>rms</sub>: DC current that causes the temperature rise (  $\Delta T = 40^\circ\text{C}$ ) from 20°C ambient.

## TYPICAL ELECTRICAL CHARACTERISTICS

Inductance vs. Frequency Characteristics



Inductance vs. DC Current Characteristics

