



# 深圳市磁立方科技有限公司

ShenZhen Magnetic Cube Technology Co., LTD.



## AP0480 SERIES



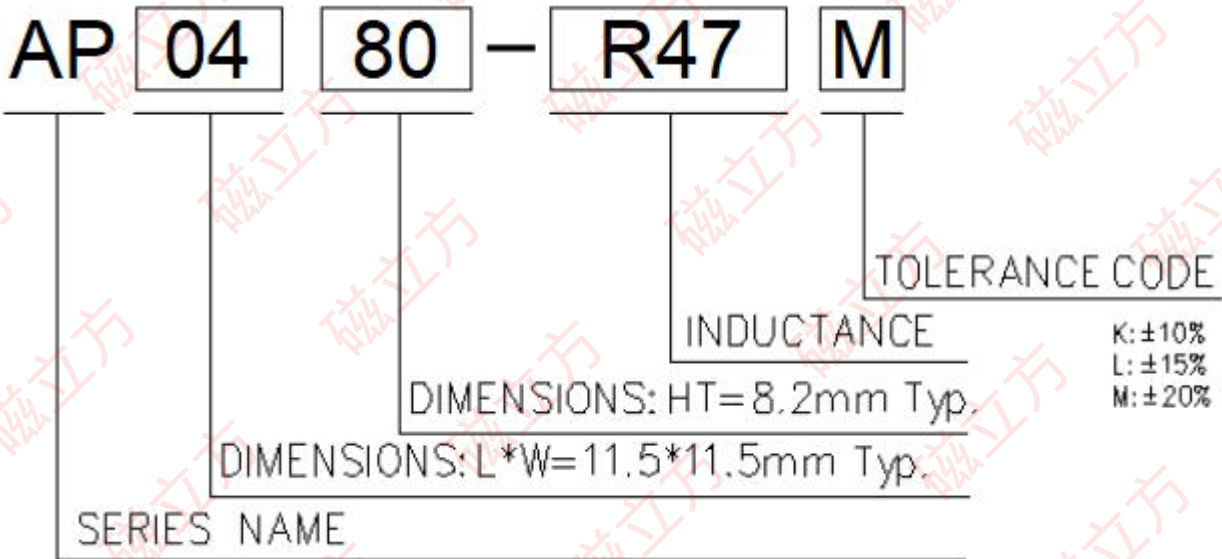
### Features

- Ultra low cost.
- Shielded construction.
- High frequency range up to 1.0 MHz.
- Very low DC resistance.
- Easy customized.
- All lead-free. (RoHS).

### Applications

- Motherboards for laptop and desktop computers.
- DC/DC converter in distributed power systems or VRM applications.
- Inductor for general purpose use.

### Part numbering system

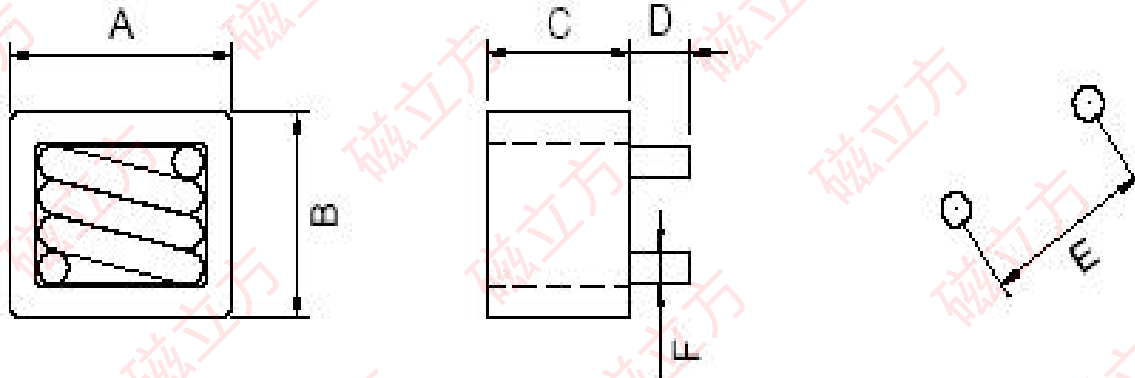


### Packing information:

Series Name	Qty. per inner box (mm)		Outer Box (mm)	
	AP0480	1000Pcs	238*156*160	2000Pcs

AP0480 SERIES

**Mechanical dimension: Unit: mm**



PART No.	A	B	C	D	E	F
AP0480-R47M	11.8MAX	11.8MAX	8.5MAX	3.5±0.5	8.7±1	1.5±0.1
AP0480-R60M	11.8MAX	11.8MAX	8.5MAX	3.5±0.5	8.7±1	1.5±0.1
AP0480-R80M	11.8MAX	11.8MAX	8.5MAX	3.5±0.5	8.4±1	1.3±0.1
AP0480-1R0M	11.8MAX	11.8MAX	8.5MAX	3.5±0.5	8.4±1	1.3±0.1

**Electrical Characteristics:**

PART No.	L(0A) ( $\mu\text{H}\pm 20\%$ )	DCR ( $\text{m}\Omega$ ) MAX	L(rms) ( $\mu\text{H}\pm 20\%$ )	Irms (Amperes)	Isat (Amperes)	PIN TO PIN
AP0480-R47M	0.47	0.9	0.45	32	50	
AP0480-R60M	0.60	0.9	0.54	28	45	
AP0480-R80M	0.80	1.5	0.72	33	40	
AP0480-1R0M	1.00	1.5	0.92	33	40	

NOTE:

- All test data is referenced to 25°C ambient, test condition 100KHz, 1.0V.
- Irms: DC current(A) that will cause an approximate  $\Delta T$  of 40°C.
- Isat: DC current(A) that will cause  $L_0$  to drop approximate 20%.
- Operating temperature range is -40°C to 120°C.
- The part temperature(ambient and temp rise) should not exceed 125°C under worse case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.



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## AP0595 SERIES



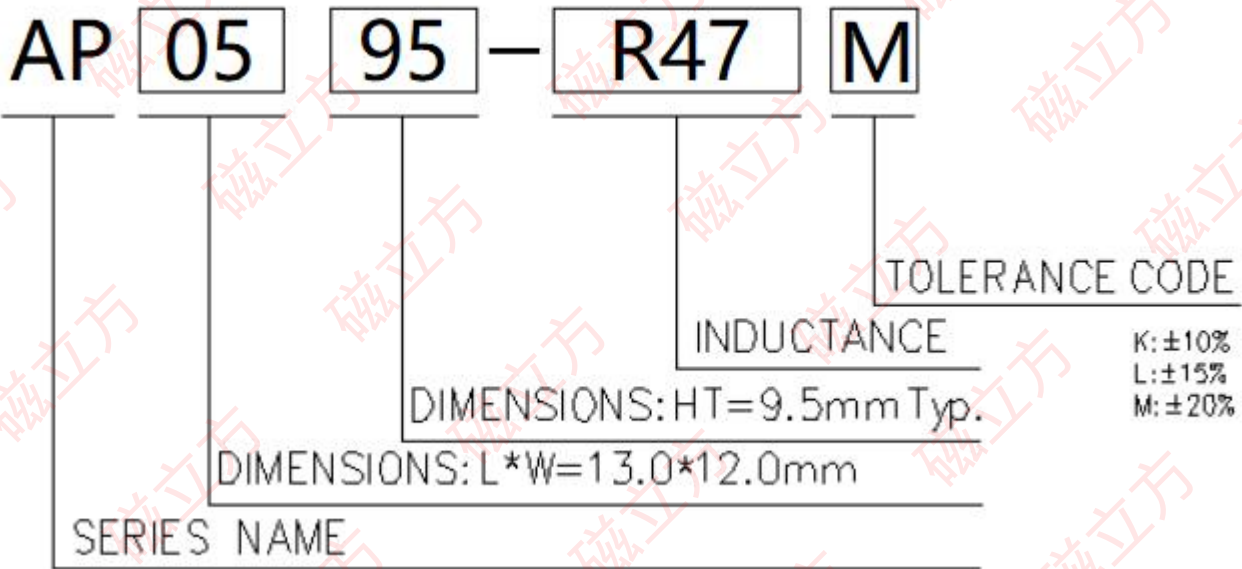
### Features

- Ultra low cost.
- High frequency range up to 1.0 MHz.
- Very low DC resistance.
- Easy customized.
- All lead-free. (RoHS).

### Applications

- Motherboards for laptop and desktop computers.
- DC/DC converter in distributed power systems or VRM applications.
- Inductor for general purpose use.

### Part numbering system



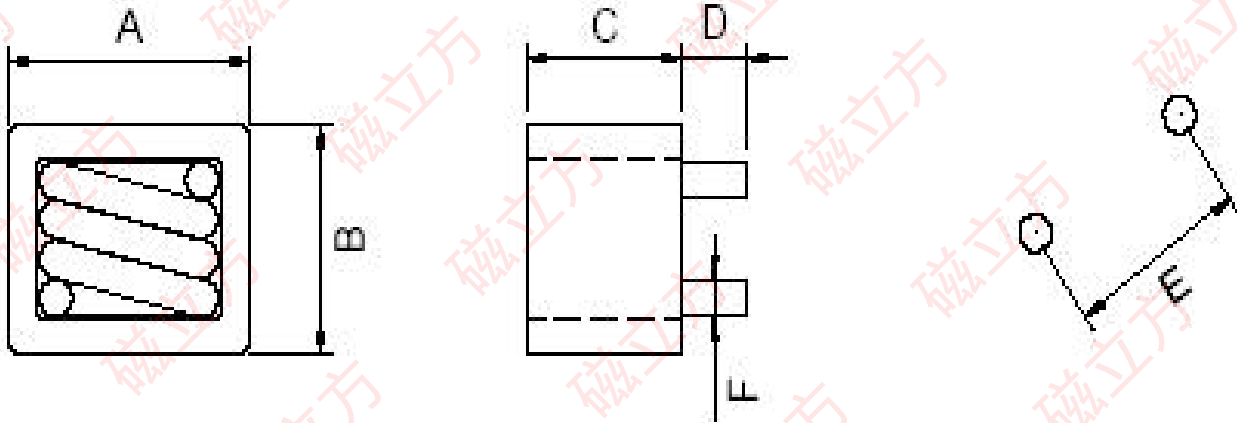
### Packing information:

Series Name	Qty. per inner box (mm)		Outer Box (mm)	
	AP0595	1000Pcs	238*156*160	2000Pcs



### AP0595 SERIES

#### Mechanical dimension: Unit: mm



PART No.	A	B	C	D	E	F
AP0595-R47M	13.5MAX	12.5MAX	10.0MAX	3.5±0.5	10.0±1	1.7±0.1
AP0595-R60M	13.5MAX	12.5MAX	10.0MAX	3.5±0.5	10.0±1	1.7±0.1
AP0595-R80M	13.5MAX	12.5MAX	10.0MAX	3.5±0.5	10.0±1	1.7±0.1
AP0595-1R0M	13.5MAX	12.5MAX	10.0MAX	3.5±0.5	10.2±1	1.5±0.1

#### Electrical Characteristics:

PART No.	L(0A) ( $\mu\text{H}\pm 20\%$ )	DCR ( $\text{m}\Omega$ ) MAX	L(rms) ( $\mu\text{H}\pm 20\%$ )	Irms (Amperes)	Isat (Amperes)	PIN TO PIN
AP0595-R47M	0.47	0.85(Typ. 0.75)	0.45	40	54	
AP0595-R60M	0.60	0.85(Typ. 0.75)	0.55	38	50	
AP0595-R80M	0.80	0.85(Typ. 0.75)	0.68	36	40	
AP0595-1R0M	1.00	1.30(Typ. 1.15)	0.94	34	38	

#### NOTE:

- All test data is referenced to 25°C ambient, test condition 100KHz, 1.0V.
- Irms: DC current(A) that will cause an approximate  $\Delta T$  of 40°C.
- Isat: DC current(A) that will cause  $L_0$  to drop approximate 20%.
- Operating temperature range is -40°C to 120°C.
- The part temperature(ambient and temp rise) should not exceed 125°C under worse case operating conditions. Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provision all affect the part temperature. Part temperature should be verified in the end application.