



## Specification of Magnetic Powder Core

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| Part Number | Product Series      | Permeability (u) | $A_L$ (nH/N <sup>2</sup> ) | Coating Color | Coating Material | Coating Breakdown Voltage |
|-------------|---------------------|------------------|----------------------------|---------------|------------------|---------------------------|
| MKF102-090  | MKF                 | 90               | 48±8%                      | Blue          | Epoxy            | 800Vac / 0.5mA /3sec      |
| Description | Toroidal Si-Fe Core |                  |                            |               |                  |                           |

### Core Dimensions

| Dimensions | Before Coating |       | After Coating |       | Min / Max |
|------------|----------------|-------|---------------|-------|-----------|
|            | inch           | mm    | inch          | mm    |           |
| OD         | 0.400          | 10.20 | 0.425         | 10.80 | Max       |
| ID         | 0.200          | 5.08  | 0.180         | 4.57  | Min       |
| HT         | 0.156          | 3.96  | 0.181         | 4.60  | Max       |



### Physical Characteristics & Packaging

| Path Length Le (cm) | Cross Section Ae (cm <sup>2</sup> ) | Core Volume Ve (cm <sup>3</sup> ) | Window Area Wa (cm <sup>2</sup> ) | Weight (g) | Box QTY (pcs) |
|---------------------|-------------------------------------|-----------------------------------|-----------------------------------|------------|---------------|
| 2.380               | 0.100                               | 0.238                             | 0.164                             | 1.7 ± 5%   | 12000         |

### Electrical Features (@25°C±2°C)

| Test Item  | Condition   | Value (Typical)           |
|------------|---|---------------------------|
| Inductance | ∅0.5 mm, 25TS, 100KHz, 1.0V, 0A                               | 30uH±8%                   |
| DC-Bias    | ∅0.5 mm, 25TS, 100KHz, 1.0V, I <sub>DC(100 Oe)</sub> = 7.61 A | 45%Min                    |
| Core Loss  | ∅0.5mm, 25TS, 50KHz, 1000Gauss                                | 520mW/cm <sup>3</sup> Max |
| Hi-Pot     | 800Vac, 0.5mA, 3 sec  | PASS                      |

### DC Bias Curves

