

# SURFACE MOUNT HIGH CURRENT POWER INDUCTORS /SMPI-E TYPE

## FEATURES

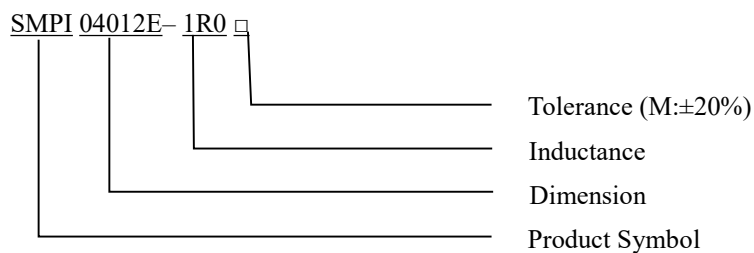
- ◆ Magnetic shielding structure: excellent resistance to electromagnetic interference (EMI).
- ◆ Die-casting by low loss alloy powder: low impedance.
- ◆ High efficiency, wide application frequency and application scope.



## APPLICATIONS

- ◆ Industrial Control Motherboards
- ◆ Graphics Cards
- ◆ Tablet PCs / Notebooks
- ◆ Power Distribution
- ◆ DC/DC Converters
- ◆ LED Lighting
- ◆ Communication Equipment
- ◆ Medical Devices

## ORDERING CODE



## DIMENSIONS UNIT: mm



|   |           |     |
|---|-----------|-----|
| A | 4.0± 0.3  | m/m |
| B | 4.0 ± 0.3 | m/m |
| C | 4.0 (REF) | m/m |
| D | 1.3 (MAX) | m/m |
| E | 1.2 (REF) | m/m |



CORE MASTER ENTERPRISE CO., LTD.

<http://www.coremaster.com.tw>

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### ELECTRICAL CHARACTERISTICS FOR SMPI 04012E

| Part No.        | Inductance (uH)<br>@0A | Test Frequency | Heat Rating<br>Current Irms(A) | Saturation<br>Current Isat ( A )<br>drop30% | RDC (mΩ)<br>MAX |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI04012E-R25M | 0.25                   | 100KHz/0.1V    | 8.0                            | 11.0                                        | 10              |
| SMPI04012E-R47M | 0.47                   | 100KHz/0.1V    | 7.0                            | 9.5                                         | 25              |
| SMPI04012E-R68M | 0.68                   | 100KHz/0.1V    | 6.0                            | 8.0                                         | 30              |
| SMPI04012E-1R0M | 1.0                    | 100KHz/0.1V    | 5.0                            | 7.0                                         | 33              |
| SMPI04012E-1R5M | 1.5                    | 100KHz/0.1V    | 4.2                            | 6.5                                         | 55              |
| SMPI04012E-2R2M | 2.2                    | 100KHz/0.1V    | 4.0                            | 6.0                                         | 63              |
| SMPI04012E-3R3M | 3.3                    | 100KHz/0.1V    | 3.5                            | 5.0                                         | 90              |
| SMPI04012E-4R7M | 4.7                    | 100KHz/0.1V    | 3.0                            | 4.5                                         | 110             |
| SMPI04012E-5R6M | 5.6                    | 100KHz/0.1V    | 2.5                            | 4.0                                         | 140             |
| SMPI04012E-6R8M | 6.8                    | 100KHz/0.1V    | 2.3                            | 3.5                                         | 160             |
| SMPI04012E-100M | 10.0                   | 100KHz/0.1V    | 1.8                            | 2.5                                         | 240             |

Notes:

- 1) You require another part number please contact with us.
- 2) Inductance Tolerance  $\pm 20\%$  ; Frequency Test : 100KHz/1.0v
- 3) All test data is referenced to 25°C ambient.
- 4) Irms : DC current (A) that will cause an approximate  $\Delta T$  of 40°C
- 5) Isat : DC current (A) that will cause  $L_o$  to drop approximately 30%
- 6) We can design according to customer's request.



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