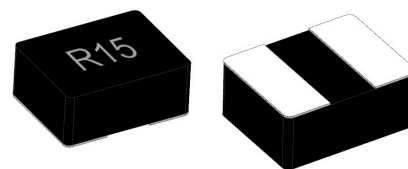


# SURFACE MOUNT HIGH CURRENT POWER INDUCTORS /SMPI-E TYPE

## FEATURES

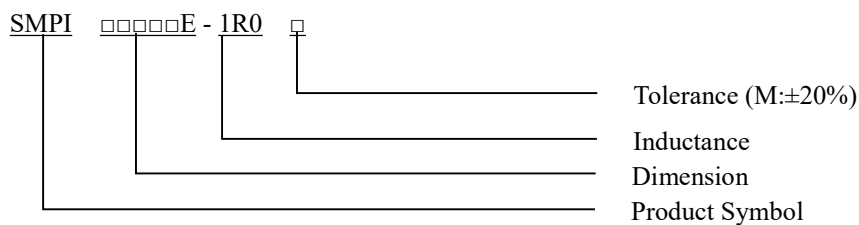
- ◆ Magnetic shielding structure: excellent resistance to electromagnetic interference (EMI).
- ◆ Die-casting by low loss alloy powder: low impedance.
- ◆ High efficiency, wide application frequency and application scope.



## APPLICATIONS

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

## ORDERING CODE



## SHAPES

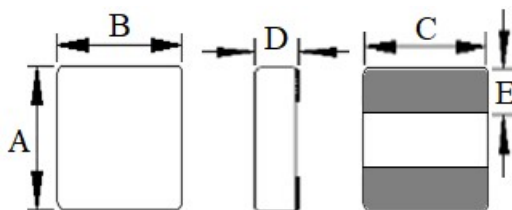


Fig 1.

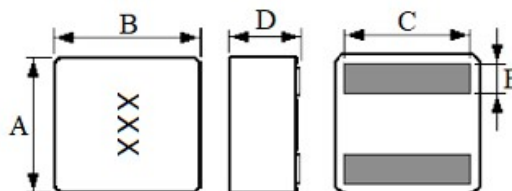


Fig 2.



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

**DIMENSIONS (UNIT: mm)**

| Part No.    | Fig. | A          | B          | C (REF) | D(MAX) | E (REF) |
|-------------|------|------------|------------|---------|--------|---------|
| SMPI 02010E | 1    | 2.0 ± 0.3  | 1.6 ± 0.3  | 1.6     | 1.1    | 0.7     |
| SMPI 02510E | 1    | 2.5 ± 0.3  | 2.0 ± 0.3  | 2.0     | 1.1    | 0.7     |
| SMPI 02512E | 1    | 2.5 ± 0.3  | 2.0 ± 0.3  | 2.0     | 1.3    | 0.7     |
| SMPI 03212E | 1    | 3.2 ± 0.3  | 2.5 ± 0.3  | 2.5     | 1.3    | 1.0     |
| SMPI 03220E | 1    | 3.2 ± 0.3  | 2.5 ± 0.3  | 2.5     | 2.1    | 1.0     |
| SMPI 04010E | 1    | 4.0 ± 0.3  | 4.0 ± 0.3  | 4.0     | 1.1    | 1.2     |
| SMPI 04012E | 1    | 4.0 ± 0.3  | 4.0 ± 0.3  | 4.0     | 1.3    | 1.2     |
| SMPI 04020E | 1    | 4.0 ± 0.3  | 4.0 ± 0.3  | 4.0     | 2.1    | 1.2     |
| SMPI 04030E | 1    | 4.0 ± 0.3  | 4.0 ± 0.3  | 4.0     | 3.1    | 1.2     |
| SMPI 04040E | 1    | 4.0 ± 0.3  | 4.0 ± 0.3  | 4.0     | 4.1    | 1.2     |
| SMPI 05050E | 2    | 5.5 ± 0.3  | 5.6 ± 0.3  | 4.3     | 5.0    | 1.2     |
| SMPI 06030E | 2    | 6.4 ± 0.3  | 6.6 ± 0.3  | 5.3     | 3.1    | 1.4     |
| SMPI 06060E | 2    | 6.4 ± 0.3  | 6.6 ± 0.3  | 5.3     | 6.1    | 1.4     |
| SMPI 07070E | 2    | 7.2 ± 0.5  | 7.5 ± 0.5  | 6.2     | 7.1    | 1.7     |
| SMPI 10100E | 2    | 10.5 ± 0.5 | 11.6 ± 0.5 | 8.3     | 10.1   | 2.2     |
| SMPI 15080E | 2    | 15.5 ± 0.5 | 16.5 ± 0.5 | 13.2    | 8.1    | 3.2     |
| SMPI 15100E | 2    | 15.8 ± 0.5 | 16.5 ± 0.5 | 13.2    | 10.1   | 3.2     |

## ELECTRICAL CHARACTERISTICS FOR SMPI 02010E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI02010E-R24M | 0.24                      | 100KHz/1V      | 6.3                            | 7.2                                         | 20              |
| SMPI02010E-R33M | 0.33                      | 100KHz/1V      | 5.0                            | 7.1                                         | 30              |
| SMPI02010E-R47M | 0.47                      | 100KHz/1V      | 4.5                            | 7.0                                         | 35              |
| SMPI02010E-R68M | 0.68                      | 100KHz/1V      | 4.0                            | 4.5                                         | 52              |
| SMPI02010E-1R0M | 1.00                      | 100KHz/1V      | 3.0                            | 3.5                                         | 76              |
| SMPI02010E-1R5M | 1.50                      | 100KHz/1V      | 2.1                            | 3.0                                         | 120             |
| SMPI02010E-2R2M | 2.20                      | 100KHz/1V      | 1.6                            | 2.4                                         | 204             |

## ELECTRICAL CHARACTERISTICS FOR SMPI 02510E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI02510E-R33M | 0.33                      | 100KHz/1V      | 6.5                            | 8.5                                         | 22              |
| SMPI02510E-R47M | 0.47                      | 100KHz/1V      | 4.5                            | 6.5                                         | 25              |
| SMPI02510E-1R0M | 1.00                      | 100KHz/1V      | 3.5                            | 4.5                                         | 52              |
| SMPI02510E-1R5M | 1.50                      | 100KHz/1V      | 3.0                            | 3.5                                         | 105             |
| SMPI02510E-2R2M | 2.20                      | 100KHz/1V      | 2.3                            | 3.0                                         | 118             |
| SMPI02510E-3R3M | 3.30                      | 100KHz/1V      | 1.8                            | 2.3                                         | 175             |
| SMPI02510E-4R7M | 4.70                      | 100KHz/1V      | 1.6                            | 1.8                                         | 235             |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 02512E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI02512E-R22M | 0.22                      | 100KHz/1V      | 9.0                            | 10.0                                        | 13              |
| SMPI02512E-R33M | 0.33                      | 100KHz/1V      | 6.5                            | 9.0                                         | 20              |
| SMPI02512E-R47M | 0.47                      | 100KHz/1V      | 5.5                            | 8.0                                         | 26              |
| SMPI02512E-R68M | 0.68                      | 100KHz/1V      | 5.2                            | 6.5                                         | 35              |
| SMPI02512E-1R0M | 1.00                      | 100KHz/1V      | 5.0                            | 5.5                                         | 37              |
| SMPI02512E-1R5M | 1.50                      | 100KHz/1V      | 3.2                            | 5.0                                         | 70              |
| SMPI02512E-2R2M | 2.20                      | 100KHz/1V      | 2.6                            | 3.5                                         | 92              |
| SMPI02512E-3R3M | 3.30                      | 100KHz/1V      | 2.0                            | 3.0                                         | 138             |
| SMPI02512E-4R7M | 4.70                      | 100KHz/1V      | 1.8                            | 2.5                                         | 190             |
| SMPI02512E-6R8M | 6.80                      | 100KHz/1V      | 1.6                            | 2.0                                         | 275             |
| SMPI02512E-100M | 10.0                      | 100KHz/1V      | 1.2                            | 1.5                                         | 405             |

### ELECTRICAL CHARACTERISTICS FOR SMPI 03212E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI03212E-R10M | 0.10                      | 100KHz/1V      | 8.5                            | 16.0                                        | 13              |
| SMPI03212E-R22M | 0.22                      | 100KHz/1V      | 8.0                            | 14.0                                        | 14              |
| SMPI03212E-R47M | 0.47                      | 100KHz/1V      | 6.0                            | 12.0                                        | 24              |
| SMPI03212E-R56M | 0.56                      | 100KHz/1V      | 5.0                            | 10.0                                        | 30              |
| SMPI03212E-R68M | 0.68                      | 100KHz/1V      | 4.5                            | 8.0                                         | 32              |
| SMPI03212E-1R0M | 1.00                      | 100KHz/1V      | 4.0                            | 7.0                                         | 35              |
| SMPI03212E-1R5M | 1.50                      | 100KHz/1V      | 3.5                            | 6.0                                         | 62              |
| SMPI03212E-2R2M | 2.20                      | 100KHz/1V      | 3.0                            | 4.5                                         | 75              |
| SMPI03212E-3R3M | 3.30                      | 100KHz/1V      | 2.5                            | 3.5                                         | 127             |
| SMPI03212E-4R7M | 4.70                      | 100KHz/1V      | 2.0                            | 3.0                                         | 192             |
| SMPI03212E-6R8M | 6.80                      | 100KHz/1V      | 2.0                            | 2.8                                         | 210             |
| SMPI03212E-100M | 10.00                     | 100KHz/1V      | 1.8                            | 2.5                                         | 322             |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 03220E

| 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 |
|-----------------|--------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI03220E-R47M | 0.47                     | 100KHz/1V      | 7.0                            | 12.0                                        | 13              |
| SMPI03220E-R68M | 0.68                     | 100KHz/1V      | 6.5                            | 11.0                                        | 16              |
| SMPI03220E-1R0M | 1.00                     | 100KHz/1V      | 5.4                            | 10.0                                        | 22              |
| SMPI03220E-1R5M | 1.50                     | 100KHz/1V      | 4.5                            | 7.5                                         | 31              |
| SMPI03220E-2R2M | 2.20                     | 100KHz/1V      | 4.0                            | 7.0                                         | 46              |
| SMPI03220E-3R3M | 3.30                     | 100KHz/1V      | 3.0                            | 5.5                                         | 65              |
| SMPI03220E-4R7M | 4.70                     | 100KHz/1V      | 2.8                            | 4.5                                         | 120             |
| SMPI03220E-6R8M | 6.80                     | 100KHz/1V      | 2.3                            | 4.0                                         | 170             |

### ELECTRICAL CHARACTERISTICS FOR SMPI 04010E

| 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 |
|-----------------|--------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI04010E-1R0M | 1.0                      | 100KHz/1V      | 3.5                            | 7.0                                         | 46              |
| SMPI04010E-1R5M | 1.5                      | 100KHz/1V      | 3.4                            | 5.0                                         | 70              |
| SMPI04010E-2R2M | 2.2                      | 100KHz/1V      | 3.2                            | 4.5                                         | 85              |
| SMPI04010E-3R3M | 3.3                      | 100KHz/1V      | 2.8                            | 4.0                                         | 120             |
| SMPI04010E-4R7M | 4.7                      | 100KHz/1V      | 2.5                            | 3.0                                         | 160             |
| SMPI04010E-6R8M | 6.8                      | 100KHz/1V      | 2.0                            | 2.5                                         | 185             |
| SMPI04010E-100M | 10.0                     | 100KHz/1V      | 1.5                            | 2.0                                         | 330             |

### 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             |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 04020E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI04020E-R22M | 0.22                      | 100KHz/1V      | 24.0                           | 25.0                                        | 2.6             |
| SMPI04020E-R47M | 0.47                      | 100KHz/1V      | 13.2                           | 16.0                                        | 4.4             |
| SMPI04020E-R68M | 0.68                      | 100KHz/1V      | 10.0                           | 12.5                                        | 6.4             |
| SMPI04020E-1R0M | 1.00                      | 100KHz/1V      | 14.0                           | 11.0                                        | 8.9             |
| SMPI04020E-1R5M | 1.50                      | 100KHz/1V      | 6.0                            | 10.0                                        | 20.0            |
| SMPI04020E-2R2M | 2.20                      | 100KHz/1V      | 5.0                            | 8.0                                         | 34.0            |
| SMPI04020E-3R3M | 3.30                      | 100KHz/1V      | 4.5                            | 6.0                                         | 43.0            |
| SMPI04020E-4R7M | 4.70                      | 100KHz/1V      | 4.0                            | 5.5                                         | 63.0            |
| SMPI04020E-5R6M | 5.60                      | 100KHz/1V      | 4.0                            | 5.3                                         | 67.0            |
| SMPI04020E-100M | 10.00                     | 100KHz/1V      | 3.4                            | 4.9                                         | 125.0           |
| SMPI04020E-220M | 22.00                     | 100KHz/1V      | 1.7                            | 2.8                                         | 280.0           |

### ELECTRICAL CHARACTERISTICS FOR SMPI 04030E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI04030E-R15M | 0.15                      | 100KHz/1V      | 26.0                           | 24.0                                        | 1.9             |
| SMPI04030E-R30M | 0.30                      | 100KHz/1V      | 24.0                           | 17.0                                        | 2.9             |
| SMPI04030E-R47M | 0.47                      | 100KHz/1V      | 21.2                           | 14.2                                        | 3.9             |
| SMPI04030E-R68M | 0.68                      | 100KHz/1V      | 14.0                           | 12.0                                        | 4.8             |
| SMPI04030E-1R0M | 1.0                       | 100KHz/1V      | 13.0                           | 10.3                                        | 7.2             |
| SMPI04030E-1R5M | 1.5                       | 100KHz/1V      | 10.2                           | 8.8                                         | 10.5            |
| SMPI04030E-2R2M | 2.2                       | 100KHz/1V      | 8.7                            | 7.0                                         | 15.0            |
| SMPI04030E-3R3M | 3.3                       | 100KHz/1V      | 7.5                            | 5.3                                         | 32.0            |
| SMPI04030E-4R7M | 4.7                       | 100KHz/1V      | 5.1                            | 5.1                                         | 44.1            |
| SMPI04030E-6R8M | 6.8                       | 100KHz/1V      | 4.7                            | 4.0                                         | 70.0            |
| SMPI04030E-8R2M | 8.2                       | 100KHz/1V      | 4.2                            | 3.5                                         | 55.7            |
| SMPI04030E-100M | 10.0                      | 100KHz/1V      | 3.9                            | 3.2                                         | 99.8            |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 04040E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI04040E-R15M | 0.15                      | 100KHz/1V      | 30.2                           | 21.0                                        | 1.8             |
| SMPI04040E-R30M | 0.30                      | 100KHz/1V      | 24.6                           | 15.3                                        | 2.6             |
| SMPI04040E-R47M | 0.47                      | 100KHz/1V      | 20.8                           | 12.2                                        | 3.2             |
| SMPI04040E-R68M | 0.68                      | 100KHz/1V      | 18.3                           | 10.5                                        | 4.0             |
| SMPI04040E-1R0M | 1.00                      | 100KHz/1V      | 14.8                           | 9.3                                         | 5.6             |
| SMPI04040E-1R5M | 1.50                      | 100KHz/1V      | 12.5                           | 7.9                                         | 7.9             |
| SMPI04040E-2R2M | 2.20                      | 100KHz/1V      | 11.0                           | 6.4                                         | 11.5            |
| SMPI04040E-3R3M | 3.30                      | 100KHz/1V      | 8.7                            | 5.5                                         | 16.6            |
| SMPI04040E-4R7M | 4.70                      | 100KHz/1V      | 7.1                            | 4.4                                         | 24.5            |
| SMPI04040E-6R8M | 6.80                      | 100KHz/1V      | 5.6                            | 4.0                                         | 34.7            |
| SMPI04040E-100M | 10.00                     | 100KHz/1V      | 5.0                            | 2.8                                         | 50.5            |

### ELECTRICAL CHARACTERISTICS FOR SMPI 05050E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI05050E-1R5M | 1.5                       | 100KHz/1V      | 17.1                           | 13.1                                        | 5.7             |
| SMPI05050E-4R7M | 4.7                       | 100KHz/1V      | 9.7                            | 7.0                                         | 16.0            |
| SMPI05050E-5R6M | 5.6                       | 100KHz/1V      | 7.2                            | 7.2                                         | 24.2            |
| SMPI05050E-6R8M | 6.8                       | 100KHz/1V      | 6.4                            | 6.6                                         | 28.6            |
| SMPI05050E-8R2M | 8.2                       | 100KHz/1V      | 6.1                            | 6.1                                         | 32.5            |
| SMPI05050E-100M | 10                        | 100KHz/1V      | 5.0                            | 5.4                                         | 43.0            |

### ELECTRICAL CHARACTERISTICS FOR SMPI 06030E

| 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 |
|-----------------|---------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI06030E-R18M | 0.18                      | 100KHz / 1V    | 32                             | 39.0                                        | 1.75            |
| SMPI06030E-R56M | 0.56                      | 100KHz / 1V    | 22                             | 29.0                                        | 3.45            |
| SMPI06030E-1R0M | 1.00                      | 100KHz / 1V    | 18                             | 23.0                                        | 6.18            |
| SMPI06030E-2R2M | 2.20                      | 100KHz / 1V    | 10                             | 16.0                                        | 14.00           |
| SMPI06030E-3R3M | 3.30                      | 100KHz / 1V    | 8                              | 12.2                                        | 20.81           |
| SMPI06030E-4R7M | 4.70                      | 100KHz / 1V    | 8                              | 9.0                                         | 28.00           |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 06060E

| 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 |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI06060E-3R3M | 3.3                    | 100KHz/1V      | 13                             | 15.0                                        | 13.0            |
| SMPI06060E-4R7M | 4.7                    | 100KHz/1V      | 11                             | 10.5                                        | 14.4            |
| SMPI06060E-6R8M | 6.8                    | 100KHz/1V      | 9                              | 9.5                                         | 20.8            |
| SMPI06060E-8R2M | 8.2                    | 100KHz/1V      | 8                              | 8.4                                         | 26.0            |
| SMPI06060E-100M | 10.0                   | 100KHz/1V      | 7                              | 7.6                                         | 29.8            |

### ELECTRICAL CHARACTERISTICS FOR SMPI 07070E

| 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 |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI07070E-1R0M | 1.0                    | 100KHz/1V      | 25.0                           | 34.8                                        | 2.81            |
| SMPI07070E-2R2M | 2.2                    | 100KHz/1V      | 17.8                           | 19.6                                        | 6.50            |
| SMPI07070E-3R3M | 3.3                    | 100KHz/1V      | 15.1                           | 19.4                                        | 9.42            |
| SMPI07070E-4R7M | 4.7                    | 100KHz/1V      | 13.6                           | 15.2                                        | 14.26           |
| SMPI07070E-5R6M | 5.6                    | 100KHz/1V      | 11.4                           | 13.0                                        | 15.03           |
| SMPI07070E-6R8M | 6.8                    | 100KHz/1V      | 9.2                            | 12.8                                        | 19.62           |
| SMPI07070E-100M | 10.0                   | 100KHz/1V      | 9.3                            | 7.5                                         | 20.17           |
| SMPI07070E-120M | 12.0                   | 100KHz/1V      | 8.2                            | 7.4                                         | 22.23           |
| SMPI07070E-150M | 15.0                   | 100KHz/1V      | 7.4                            | 7.0                                         | 29.52           |
| SMPI07070E-180M | 18.0                   | 100KHz/1V      | 6.8                            | 6.3                                         | 32.82           |
| SMPI07070E-220M | 22.0                   | 100KHz/1V      | 6.5                            | 5.6                                         | 39.69           |
| SMPI07070E-330M | 33.0                   | 100KHz/1V      | 4.9                            | 4.4                                         | 62.08           |
| SMPI07070E-470M | 47.0                   | 100KHz/1V      | 4.1                            | 4.2                                         | 97.07           |

### ELECTRICAL CHARACTERISTICS FOR SMPI 10100E

| 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 |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI10100E-2R2M | 2.2                    | 100KHz/1V      | 32.0                           | 34.0                                        | 2.80            |
| SMPI10100E-3R3M | 3.3                    | 100KHz/1V      | 25.0                           | 27.4                                        | 4.10            |
| SMPI10100E-4R7M | 4.7                    | 100KHz/1V      | 22.0                           | 25.4                                        | 5.70            |
| SMPI10100E-5R6M | 5.6                    | 100KHz/1V      | 21.2                           | 23.6                                        | 6.93            |
| SMPI10100E-6R8M | 6.8                    | 100KHz/1V      | 18.5                           | 21.8                                        | 8.90            |
| SMPI10100E-8R2M | 8.2                    | 100KHz/1V      | 17.1                           | 18.3                                        | 12.90           |
| SMPI10100E-100M | 10.0                   | 100KHz/1V      | 15.5                           | 17.5                                        | 14.75           |
| SMPI10100E-150M | 15.0                   | 100KHz/1V      | 13.8                           | 15.5                                        | 19.30           |
| SMPI10100E-220M | 22.0                   | 100KHz/1V      | 12.0                           | 12.0                                        | 22.00           |



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

### ELECTRICAL CHARACTERISTICS FOR SMPI 15080E

| 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 |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI15080E-2R0M | 2.0                    | 100KHz/1V      | 39.9                           | 51.0                                        | 2.29            |
| SMPI15080E-3R0M | 3.0                    | 100KHz/1V      | 34.4                           | 43.0                                        | 3.10            |
| SMPI15080E-4R5M | 4.5                    | 100KHz/1V      | 27.0                           | 34.2                                        | 4.58            |
| SMPI15080E-5R3M | 5.3                    | 100KHz/1V      | 26.5                           | 33.0                                        | 5.22            |
| SMPI15080E-150M | 15.0                   | 100KHz/1V      | 15.0                           | 18.0                                        | 15.00           |

### ELECTRICAL CHARACTERISTICS FOR SMPI 15100E

| 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 |
|-----------------|------------------------|----------------|--------------------------------|---------------------------------------------|-----------------|
| SMPI15100E-4R7M | 4.7                    | 100KHz/1V      | 29                             | 39.0                                        | 3.8             |
| SMPI15100E-6R8M | 6.8                    | 100KHz/1V      | 26                             | 36.0                                        | 4.6             |
| SMPI15100E-8R2M | 8.2                    | 100KHz/1V      | 24                             | 30.0                                        | 7.5             |
| SMPI15100E-100M | 10.0                   | 100KHz/1V      | 22                             | 26.3                                        | 9.0             |
| SMPI15100E-150M | 15.0                   | 100KHz/1V      | 18                             | 23.0                                        | 12.4            |
| SMPI15100E-220M | 22.0                   | 100KHz/1V      | 14                             | 18.7                                        | 16.0            |
| SMPI15100E-330M | 33.0                   | 100KHz/1V      | 12                             | 16.7                                        | 20.0            |

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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