

# SPECIFICATION OF BSFxxxxSMSE SERIES

## FEATURES

1. High performance (Isat) realized by metal dust core.
2. Low profile : Thickness with 2.0 to 7.0 mm for different size.
3. Low loss realized with low DCR.
4. Capable of corresponding high frequency (1MHz).
5. Halogen free, lead free, RoHS compliant.



## APPLICATIONS

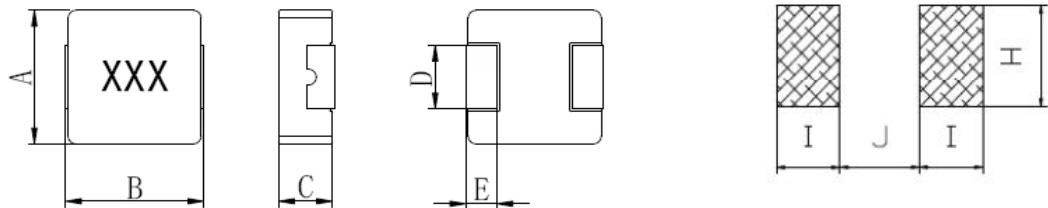
DC/DC Converter for CPU in Notebook PC.  
Thin type on-board power supply module for exchanger. VRM for server.  
Graphic Card , DSC , Mobile Phone , LCD panel , LCD TV , HDD.

## ORDERING CODE

BSF1770SMSE 2R2 M T  
(1) (2) (3)(4)

- (1) PRODUCT TYPE CODE AND SIZE CODE
- (2) INDUCTANCE
- (3) INDUCTANCE TOLERANCE ( M : ±20%, N : ±30% )
- (4) REEL TAPING

Unit: mm



LAND PATTERN

## SHAPE & DIMENSIONS

| SIZE CODE   | A<br>mm   | B<br>mm    | C<br>max | D<br>mm | E<br>mm | H<br>TYP | I<br>TYP | J<br>TYP |  |  |
|-------------|-----------|------------|----------|---------|---------|----------|----------|----------|--|--|
| BSF0402SMSE | 4.20±0.25 | 4.40±0.35  | 1.8±0.2  | 2.0REF  | 0.8REF  | 2.5      | 1.5      | 2.2      |  |  |
| BSF0603SMSE | 6.6±0.2   | 7.0±0.3    | 2.8±0.2  | 3.0REF  | 1.6REF  | 3.5      | 2.35     | 3.7      |  |  |
| BSF1004SMSE | 10.0±0.3  | 11.5max    | 3.8±0.2  | 3.0REF  | 2.0REF  | 4.1      | 4.1      | 5.4      |  |  |
| BSF1265SMSE | 12.6±0.3  | 13.45±0.35 | 6.5max   | 5.0REF  | 2.0REF  | 5.0      | 3.25     | 8.0      |  |  |
| BSF1770SMSE | 17.15max  | 17.15±0.35 | 7.0max   | 12.0REF | 2.5REF  | 12.19    | 3.17     | 11.68    |  |  |
|             |           |            |          |         |         |          |          |          |  |  |
|             |           |            |          |         |         |          |          |          |  |  |

※All the data listed in this catalogue are for reference only, King Core reserves the right to alter or revise the specifications without prior notification.

# SMD POWER INDUCTORS → BSF1770SMSE SERIES

## ELECTRICAL CHARACTERISTIC

| ORDERING CODE    | Inductance<br>( $\mu$ H) | DC Resistance<br>( $m\Omega$ )max | Isat<br>(A)TYP | IDC<br>(A)TYP |
|------------------|--------------------------|-----------------------------------|----------------|---------------|
| BSF1770SMSE2R2MT | 2.2                      | 2.50                              | 34.0           | 29.0          |
| BSF1770SMSE3R3MT | 3.3                      | 3.95                              | 30.0           | 24.0          |
| BSF1770SMSE4R7MT | 4.7                      | 4.75                              | 24.0           | 21.0          |
| BSF1770SMSE6R8MT | 6.8                      | 7.50                              | 22.0           | 17.0          |
| BSF1770SMSE8R2MT | 8.2                      | 8.70                              | 20.0           | 13.0          |
| BSF1770SMSE100MT | 10.0                     | 9.90                              | 19.0           | 12.0          |
| BSF1770SMSE150MT | 15.0                     | 17.0                              | 14.5           | 11.0          |
| BSF1770SMSE220MT | 22.0                     | 23.0                              | 11.5           | 8.5           |
| BSF1770SMSE330MT | 33.0                     | 37.0                              | 10.0           | 8.0           |
| BSF1770SMSE470MT | 47.0                     | 47.0                              | 7.5            | 6.0           |
| BSF1770SMSE680MT | 68.0                     | 85.0                              | 6.5            | 5.2           |
| BSF1770SMSE101MT | 100.0                    | 130.0                             | 5.0            | 3.7           |
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|                  |                          |                                   |                |               |

※Test Frequency : 100KHz/1V

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

※Operating temperature range : -40°C ~ +125°C (including self-heating)

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