

# 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

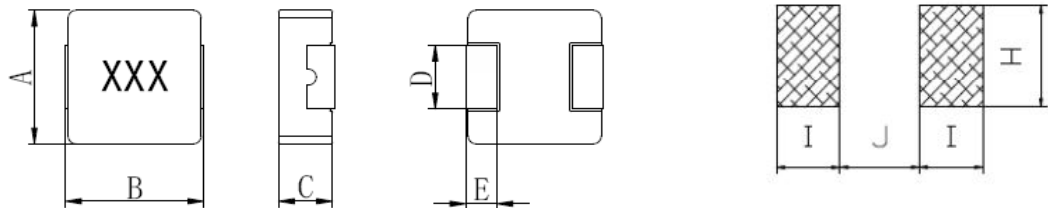
DC/DC Converter for CPU in Notebook PC.  
Thin type on-board power supply module for exchanger. VRM for server.  
Graphic Card , DSC , Mobile Phone , LCD panel , LCD TV , HDD.

## ORDERING CODE

BSF0402SMSE R22 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 mm	B mm	C max	D mm	E mm	H TYP	I TYP	J 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		

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# SMD POWER INDUCTORS → BSF0402SMSE SERIES

## ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance ( $\mu$ H)	DC Resistance ( $m\Omega$ )max	Isat (A)TYP	IDC (A)TYP
BSF0402SMSE10MT	0.10	4.0	22.0	13.0
BSF0402SMSE22MT	0.22	6.6	12.5	9.5
BSF0402SMSE33MT	0.33	11.0	12.0	10.0
BSF0402SMSE47MT	0.47	14.0	9.5	7.5
BSF0402SMSE56MT	0.56	16.0	9.0	7.0
BSF0402SMSE68MT	0.68	18.0	8.0	7.0
BSF0402SMSE1R0MT	1.0	27.0	7.0	6.0
BSF0402SMSE1R2MT	1.2	27.0	6.5	6.0
BSF0402SMSE1R5MT	1.5	46.0	5.5	5.0
BSF0402SMSE2R2MT	2.20	58.0	5.0	4.5
BSF0402SMSE3R3MT	3.30	87.0	3.5	3.3
BSF0402SMSE4R7MT	4.7	105.0	3.0	2.8
BSF0402SMSE6R8MT	6.8	175.0	2.5	2.4
BSF0402SMSE100MT	10.0	282.0	2.0	1.6
BSF0402SMSE220MT	22.0	363.0	1.4	1.2

※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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# SMD POWER INDUCTORS → BSF0402SMSE SERIES

## ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance ( $\mu\text{H}$ )	DC Resistance ( $\text{m}\Omega$ )max	Isat (A)TYP	IDC (A)TYP
BSF0603SMSE1R0MT	0.22	3.0	34.0	23.0
BSF0603SMSE1R5MT	0.47	4.1	20.0	18.0
BSF0603SMSE2R2MT	0.56	4.5	18.0	16.5
BSF0603SMSE2R8MT	0.68	5.3	17.0	16.0
BSF0603SMSE3R3MT	0.82	6.0	16.0	14.0
BSF0603SMSE4R7MT	1.0	7.4	15.0	12.0
BSF0603SMSE5R6MT	1.5	12.1	12.0	11.0
BSF0603SMSE6R8MT	2.2	15.0	10.0	9.0
BSF0603SMSE8R2MT	3.3	22.0	9.5	7.0
BSF0603SMSE100MT	4.7	33.0	9.0	6.0
BSF0603SMSE150MT	5.6	42.0	6.5	5.5
BSF0603SMSE220MT	6.8	48.0	6.0	5.0
BSF0603SMSE330MT	8.2	60.0	5.5	5.0
BSF0603SMSE470MT	10.0	68.0	5.5	4.5
BSF0603SMSE70MT	15.0	113.0	4.0	3.0
BSF0603SMSE100MT	22.0	170.0	3.0	2.5
BSF0603SMSE150MT	33.0	270.0	2.5	2.0
BSF0603SMSE220MT	47.0	385.0	2.0	1.50

※Test Frequency : 100KHz/1V

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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# SMD POWER INDUCTORS → BSF1004SMSE SERIES

## ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance ( $\mu$ H)	DC Resistance ( $m\Omega$ )max	Isat (A)TYP	IDC (A)TYP
BSF1004SMSE15MT	0.15	0.65	75.0	45.0
BSF1004SMSE22MT	0.22	1.00	60.0	35.0
BSF1004SMSE30MT	0.30	1.10	45.0	35.0
BSF1004SMSE36MT	0.36	1.20	45.0	30.0
BSF1004SMSE47MT	0.47	1.70	40.0	30.0
BSF1004SMSE56MT	0.56	1.80	33.0	25.0
BSF1004SMSE68MT	0.68	2.40	30.0	23.0
BSF1004SMSE80MT	0.80	2.70	29.0	23.0
BSF1004SMSE1R0MT	1.0	3.30	28.0	19.0
BSF1004SMSE1R5MT	1.5	4.20	24.0	16.0
BSF1004SMSE2R2MT	2.2	7.00	16.5	12.0
BSF1004SMSE3R3MT	3.3	11.8	16.0	11.0
BSF1004SMSE4R7MT	4.7	20.0	13.0	9.0
BSF1004SMSE6R8MT	6.8	25.0	12.0	8.5
BSF1004SMSE8R2MT	8.2	27.0	9.0	8.0
BSF1004SMSE100MT	10.0	30.0	8.5	7.8
BSF1004SMSE150MT	15.0	45.0	7.0	6.5
BSF1004SMSE220MT	22.0	66.0	5.5	5.0
BSF1004SMSE330MT	33.0	92.0	4.8	4.4
BSF1004SMSE470MT	47.0	145.0	3.5	3.3
BSF1004SMSE680MT	68.0	195.0	3.0	2.5
BSF1004SMSE101MT	100.0	340.0	2.3	2.0

※Test Frequency : 100KHz/1V

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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