

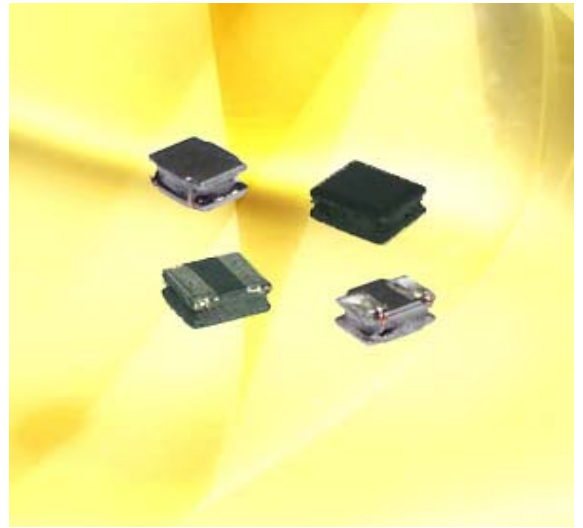
SPECIFICATION OF BSF-□NR□ SERIES

FEATURES

1. Low profile construction and miniature size.
2. High magnetic shield construction and acted high performance for EMC/EMI protection.
3. Low coil resistance with large current.
4. 100% lead (Pb) free meet RoHS standard.

APPLICATIONS

1. D/D converter unit design for mobile product, VRM for server.
2. DVD、HDD、STB、LCD display、IP CAM、GPS、USB connector、Smart phones、Face Recognition System、IoT application...etc.



ORDERING CODE

BSF2512SNR□
R47
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

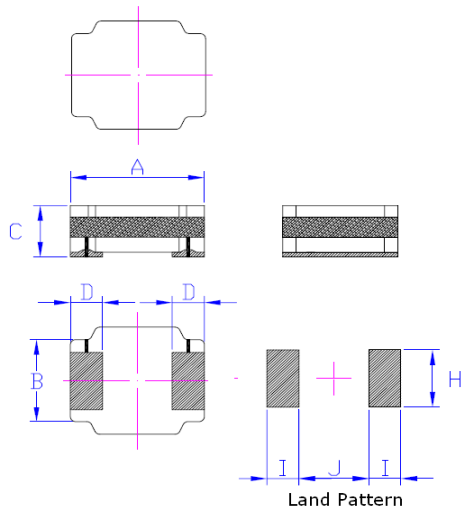


FIG 1

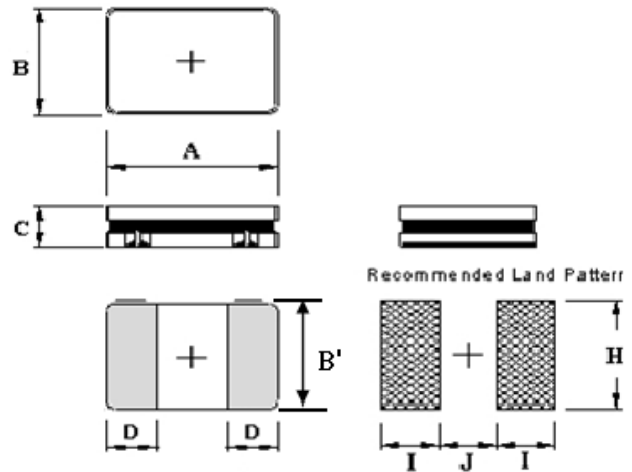


FIG 2

SHAPE & DIMENSIONS

UNIT:mm

| SIZE CODE | A | B | B' | C | D | H | I | J | FIG |
|-------------|-----------|-----------|-----------|-----------|-----------|------|------|------|-----|
| BSF2010BNR□ | 2.00±0.20 | 1.60±0.20 | - | 1.05max | 0.60±0.20 | 1.10 | 1.00 | 0.90 | 1 |
| BSF2510SNR□ | 2.50±0.25 | 2.10±0.20 | 2.25±0.20 | 1.00 max. | 0.85±0.20 | 2.30 | 0.95 | 0.90 | 2 |
| BSF2512SNR□ | 2.50±0.25 | 2.10±0.20 | 2.25±0.20 | 1.20 max. | 0.85±0.20 | 2.30 | 0.95 | 0.90 | 2 |

※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 → BSF2010BNRA SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2010BNRAR47MT | 0.47 | 62 | 170 | 2.30 | 2.20 |
| BSF2010BNRAR68MT | 0.68 | 80 | 140 | 2.00 | 1.80 |
| BSF2010BNRA1R0MT | 1.00 | 96 | 110 | 1.80 | 1.70 |
| BSF2010BNRA1R5MT | 1.50 | 150 | 95 | 1.40 | 1.40 |
| BSF2010BNRA1R8MT | 1.80 | 175 | 70 | 1.20 | 1.20 |
| BSF2010BNRA2R2MT | 2.20 | 210 | 70 | 1.10 | 1.10 |
| BSF2010BNRA3R3MT | 3.30 | 300 | 55 | 0.95 | 1.00 |
| BSF2010BNRA4R7MT | 4.70 | 384 | 45 | 0.76 | 0.85 |
| BSF2010BNRA6R8MT | 6.80 | 770 | 35 | 0.66 | 0.67 |
| BSF2010BNRA8R2MT | 8.20 | 840 | 30 | 0.63 | 0.65 |
| BSF2010BNRA100MT | 10.0 | 950 | 30 | 0.60 | 0.65 |
| BSF2010BNRA150MT | 15.0 | 1600 | 25 | 0.45 | 0.40 |
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※Test Frequency: 1MHz/0.1V

※Tolerance: $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

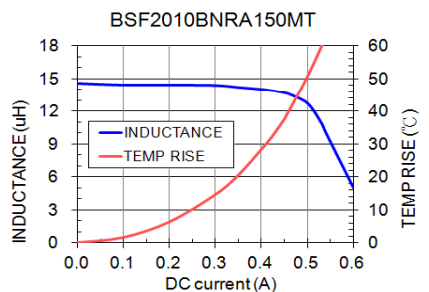
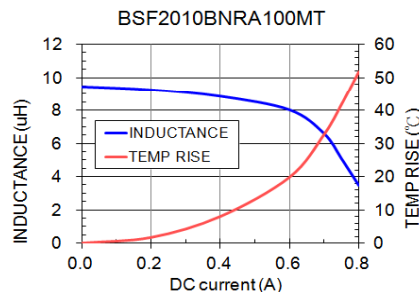
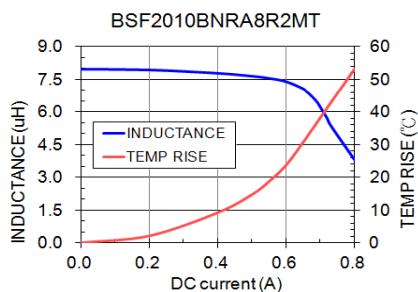
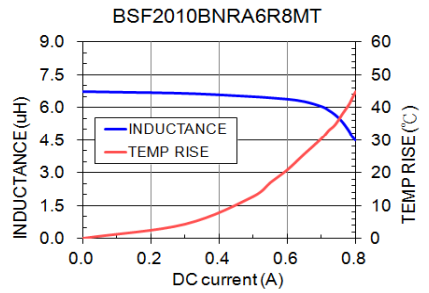
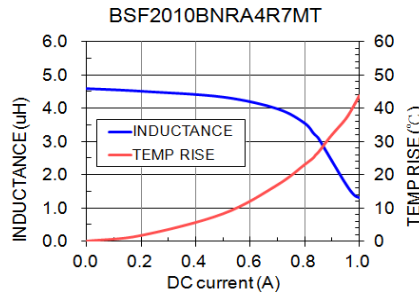
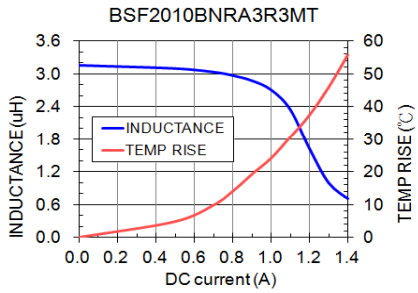
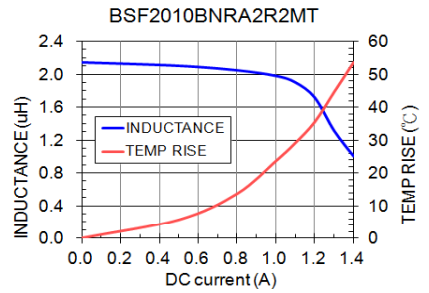
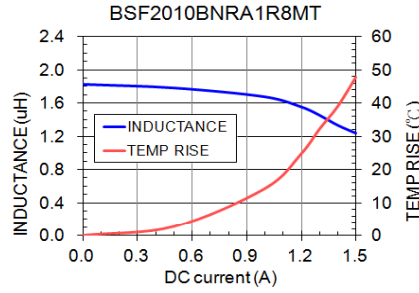
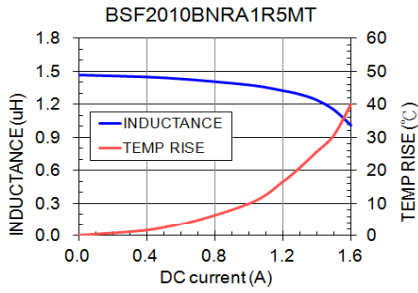
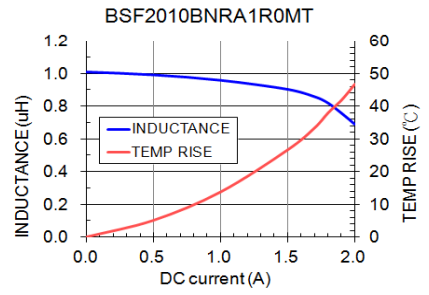
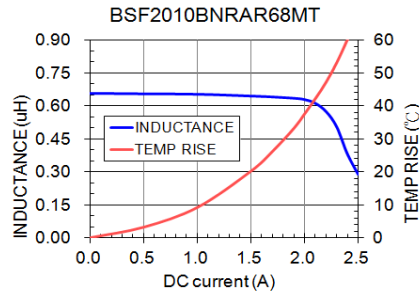
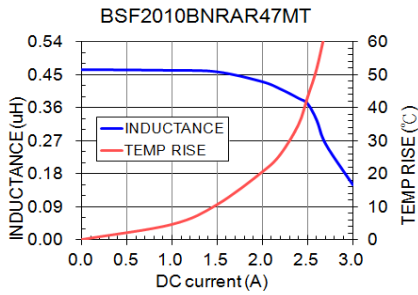
※Operating temperature range : -40 to +125°C (including self-heating)

※Storage Temp. : -40°C TO+85°C

※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 → BSF2010BNRA SERIES

ELECTRICAL CHARACTERISTIC



※Test Frequency: 1MHz/0.1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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

※Storage Temp. : -40°C TO +85°C

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SMD POWER INDUCTORS → BSF2010BNRB SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2010BNRBR24MT | 0.24 | 25 | 200 | 2.20 | 3.40 |
| BSF2010BNRBR33MT | 0.33 | 35 | 180 | 2.10 | 3.00 |
| BSF2010BNRBR47MT | 0.47 | 50 | 170 | 2.00 | 2.60 |
| BSF2010BNRB1R0MT | 1.00 | 80 | 110 | 1.40 | 1.80 |
| BSF2010BNRB1R5MT | 1.50 | 120 | 90 | 1.10 | 1.50 |
| BSF2010BNRB2R2MT | 2.20 | 150 | 60 | 0.85 | 1.30 |
| BSF2010BNRB3R3MT | 3.30 | 187 | 55 | 0.70 | 1.20 |
| BSF2010BNRB4R7MT | 4.70 | 225 | 45 | 0.50 | 1.10 |
| BSF2010BNRB100MT | 10.0 | 540 | 30 | 0.39 | 0.75 |
| BSF2010BNRB220MT | 22.0 | 1500 | 20 | 0.26 | 0.38 |
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※Test Frequency: 1MHz/0.1V

※Tolerance: $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

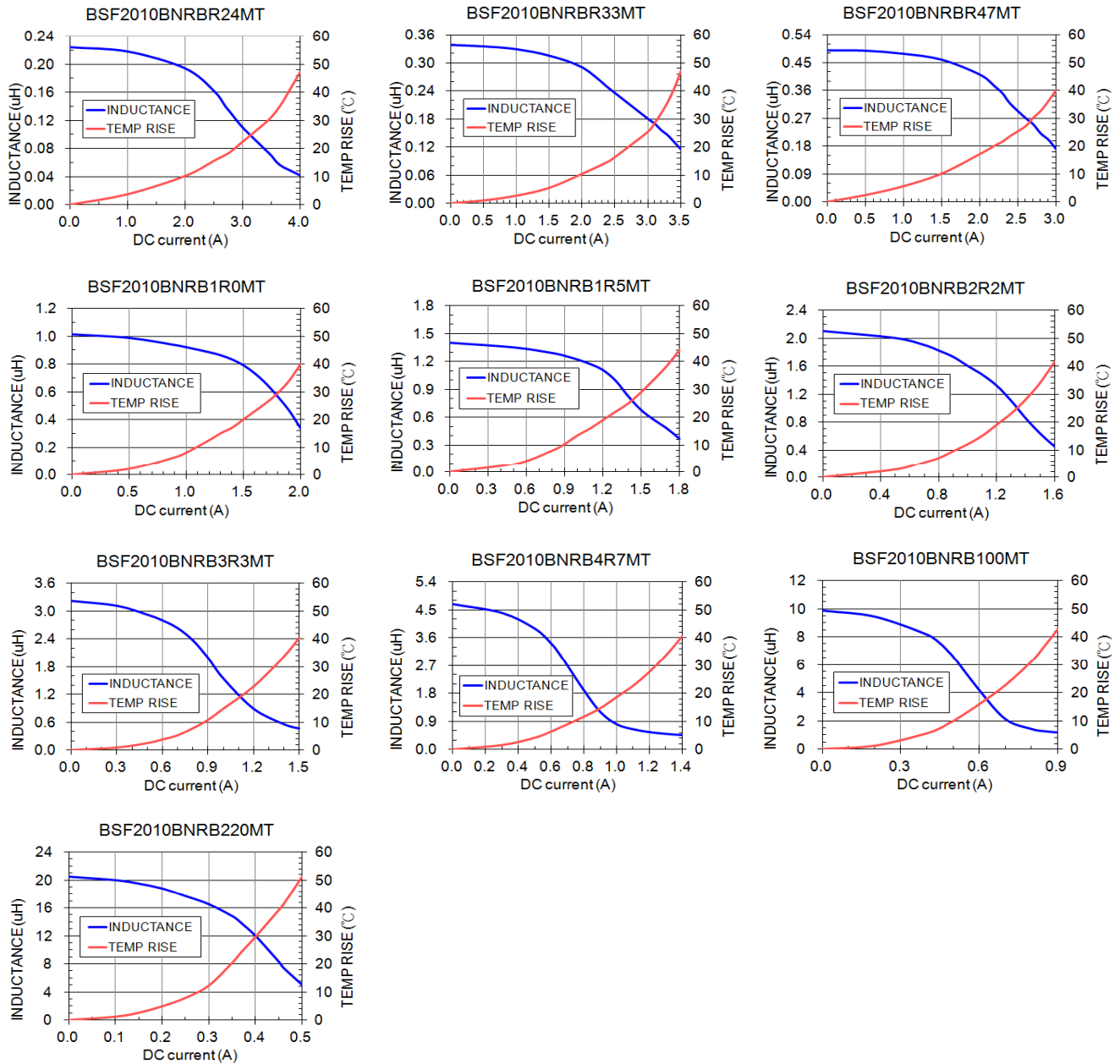
※Operating temperature range : -40 to +125°C (including self-heating)

※Storage Temp. : -40°C TO+85°C

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SMD POWER INDUCTORS → BSF2010BNRB SERIES

ELECTRICAL CHARACTERISTIC



※Test Frequency: 1MHz/0.1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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

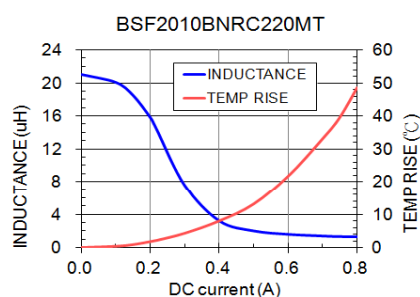
※Storage Temp. : -40°C TO +85°C

※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 → BSF2010BNRC SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2010BNRC220MT | 22.0 | 770 | 20 | 0.17 | 0.65 |
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※Test Frequency: 1MHz/0.1V

※Tolerance: $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40 $^{\circ}\text{C}$

※Operating temperature range : -40 to +125 $^{\circ}\text{C}$ (including self-heating)

※Storage Temp. : -40 $^{\circ}\text{C}$ TO +85 $^{\circ}\text{C}$

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SMD POWER INDUCTORS → BSF2510SNRA SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2510SNRAR47MT | 0.47 | 42 | 160 | 3.20 | 3.30 |
| BSF2510SNRAR68MT | 0.68 | 54 | 155 | 2.60 | 3.20 |
| BSF2510SNRA1R0MT | 1.00 | 80 | 130 | 2.20 | 2.60 |
| BSF2510SNRA1R5MT | 1.50 | 105 | 100 | 1.60 | 2.40 |
| BSF2510SNRA2R2MT | 2.20 | 150 | 80 | 1.40 | 1.80 |
| BSF2510SNRA3R3MT | 3.30 | 235 | 70 | 1.20 | 1.50 |
| BSF2510SNRA4R7MT | 4.70 | 310 | 50 | 1.10 | 1.20 |
| BSF2510SNRA6R8MT | 6.80 | 450 | 40 | 0.80 | 1.00 |
| BSF2510SNRA8R2MT | 8.20 | 500 | 35 | 0.75 | 0.90 |
| BSF2510SNRA100MT | 10.0 | 550 | 30 | 0.65 | 0.85 |
| BSF2510SNRA220MT | 22.0 | 1450 | 20 | 0.48 | 0.56 |

※Test Frequency: 1MHz/0.1V

※Tolerance: $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

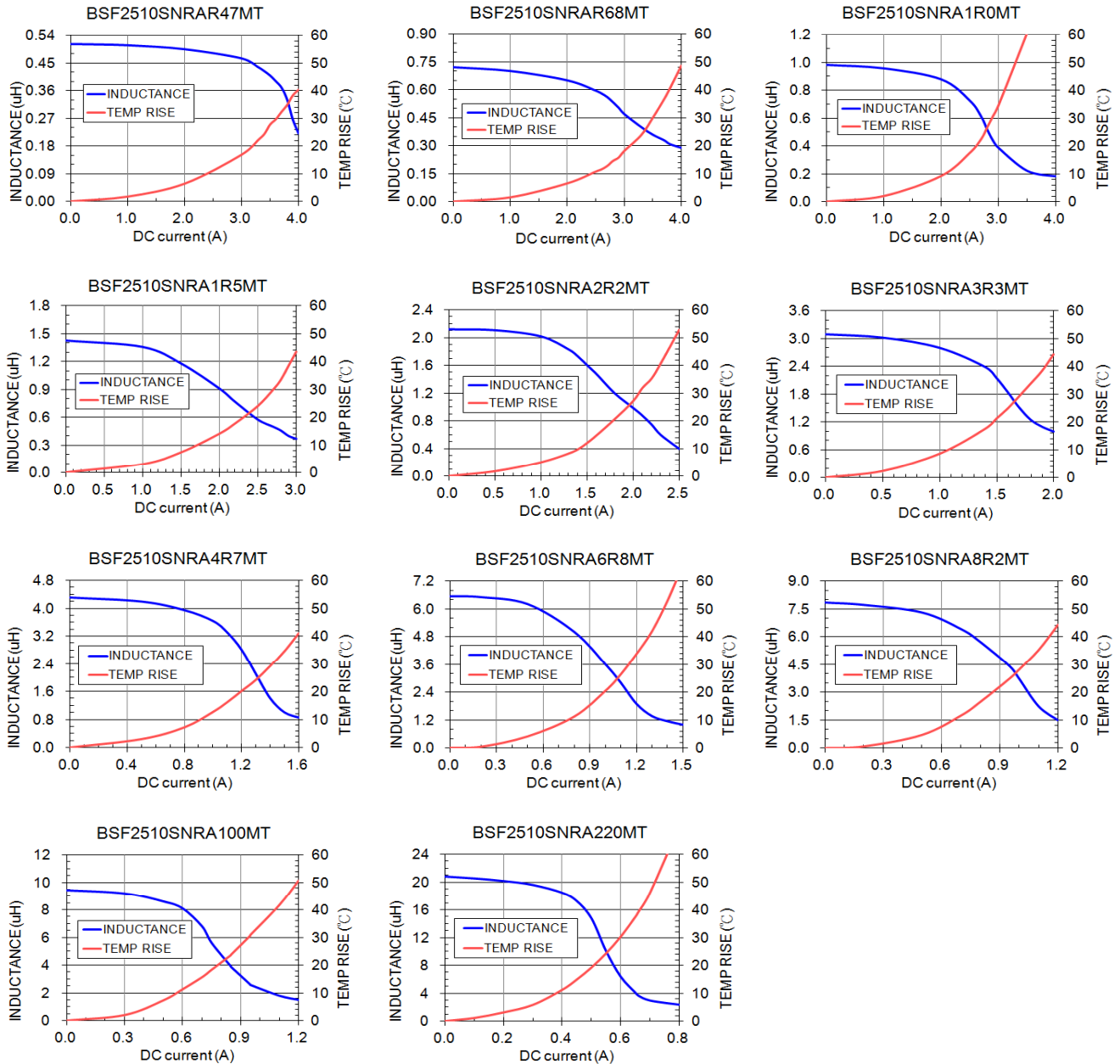
※Operating temperature range : -40 to +125°C (including self-heating)

※Storage Temp. : -40°C TO+85°C

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SMD POWER INDUCTORS → BSF2510SNRA SERIES

ELECTRICAL CHARACTERISTIC



※Test Frequency: 1MHz/0.1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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

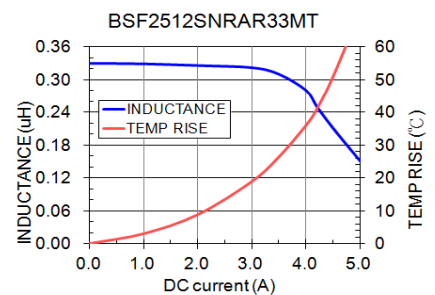
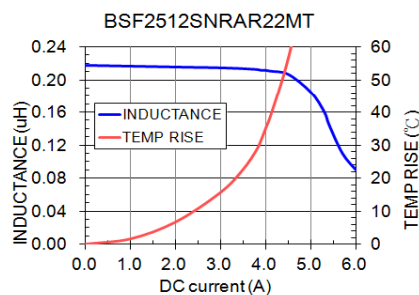
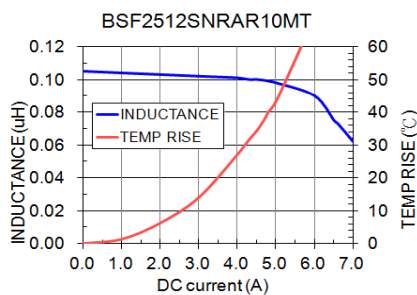
※Storage Temp. : -40°C TO+85°C

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SMD POWER INDUCTORS → BSF2512SNRA SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2512SNRAR10MT | 0.10 | 32 | 350 | 6.00 | 4.20 |
| BSF2512SNRAR22MT | 0.22 | 40 | 250 | 5.00 | 3.90 |
| BSF2512SNRAR33MT | 0.33 | 42 | 240 | 4.10 | 3.80 |
| BSF2512SNRAR47MT | 0.47 | 45 | 190 | 4.00 | 3.70 |
| BSF2512SNRAR68MT | 0.68 | 50 | 150 | 3.30 | 3.60 |
| BSF2512SNRA1R0MT | 1.00 | 56 | 120 | 2.80 | 3.10 |
| BSF2512SNRA1R5MT | 1.50 | 78 | 100 | 2.10 | 2.40 |
| BSF2512SNRA1R8MT | 1.80 | 99 | 80 | 2.00 | 2.10 |
| BSF2512SNRA2R2MT | 2.20 | 109 | 75 | 1.90 | 2.10 |
| BSF2512SNRA3R3MT | 3.30 | 172 | 70 | 1.50 | 1.70 |
| BSF2512SNRA4R7MT | 4.70 | 227 | 45 | 1.20 | 1.40 |
| BSF2512SNRA6R8MT | 6.80 | 320 | 40 | 0.95 | 1.30 |
| BSF2512SNRA8R2MT | 8.20 | 415 | 35 | 0.85 | 1.10 |
| BSF2512SNRA100MT | 10.00 | 430 | 30 | 0.80 | 1.00 |
| BSF2512SNRA150MT | 15.0 | 730 | 25 | 0.63 | 0.80 |
| BSF2512SNRA220MT | 22.0 | 1020 | 20 | 0.55 | 0.60 |
| BSF2512SNRA330MT | 33.0 | 1400 | 15 | 0.40 | 0.50 |



※Test Frequency: 1MHz/0.1V

※Tolerance: $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40 $^{\circ}\text{C}$

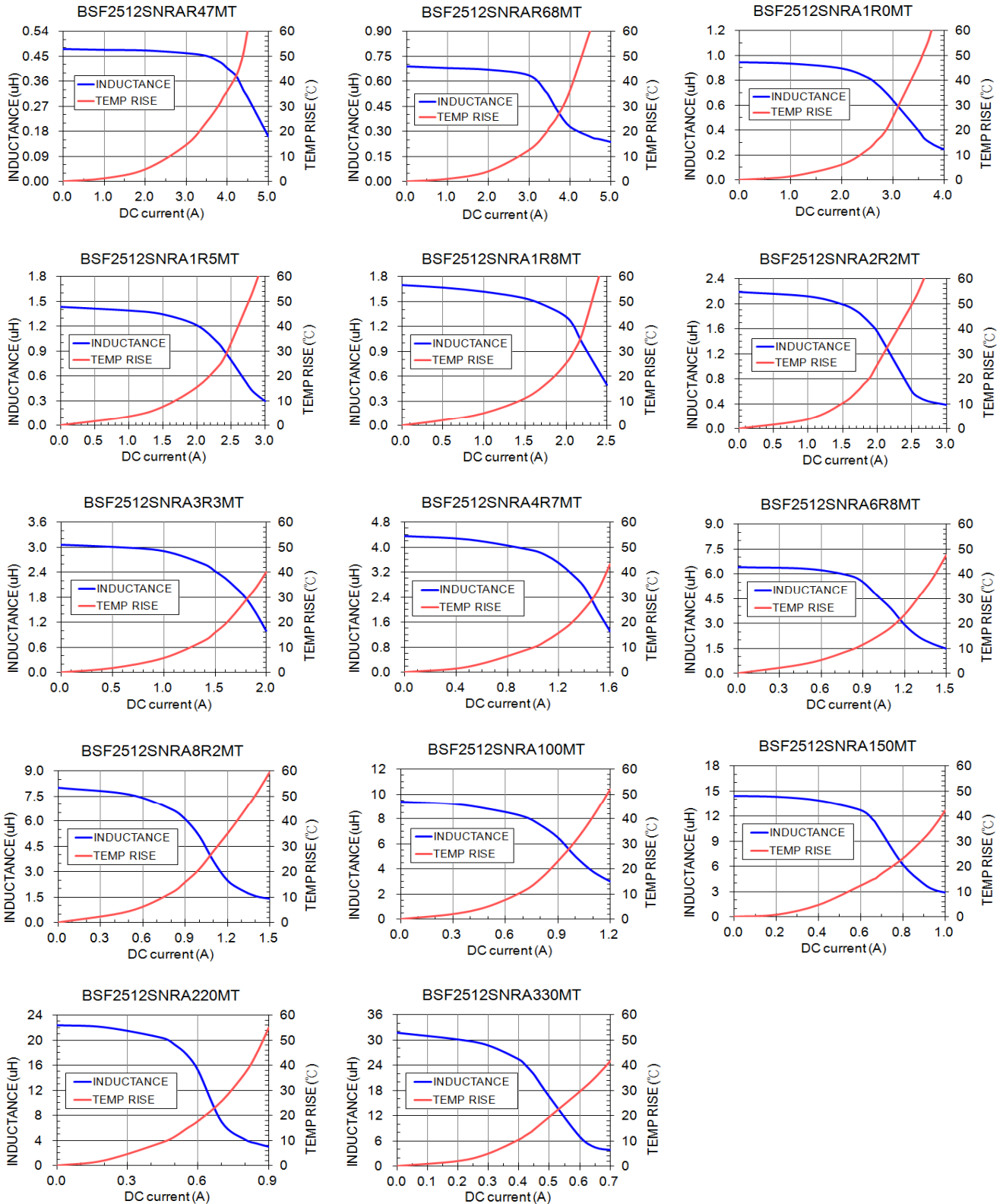
※Operating temperature range : -40 to +125 $^{\circ}\text{C}$ (including self-heating)

※Storage Temp. : -40 $^{\circ}\text{C}$ TO+85 $^{\circ}\text{C}$

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SMD POWER INDUCTORS → BSF2512SNRA SERIES

ELECTRICAL CHARACTERISTIC

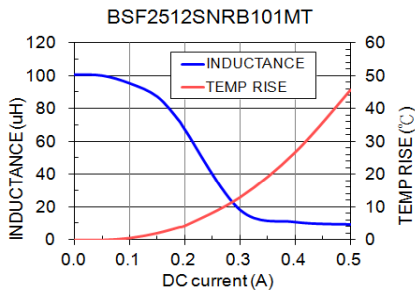
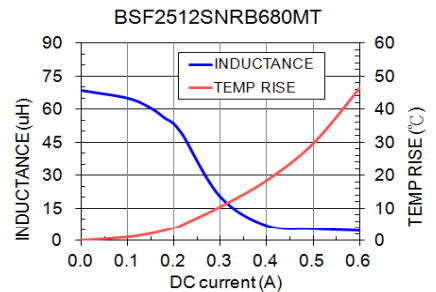
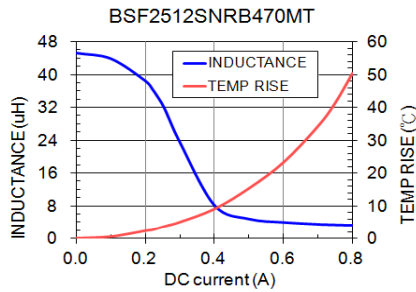
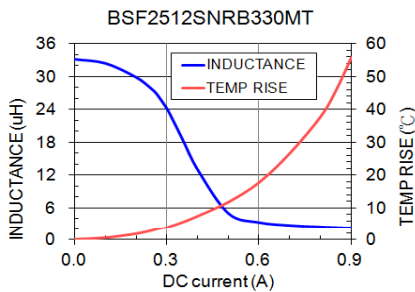


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SMD POWER INDUCTORS → BSF2512SNRB SERIES

ELECTRICAL CHARACTERISTIC

| ORDERING CODE | Inductance (μH) | DC Resistance ($\text{m}\Omega$)max | SRF(MHz) min | Isat (A)max | IDC (A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2512SNRB330MT | 33.0 | 1000 | 15 | 0.27 | 0.70 |
| BSF2512SNRB470MT | 47.0 | 1250 | 10 | 0.22 | 0.55 |
| BSF2512SNRB680MT | 68.0 | 2200 | 7 | 0.20 | 0.45 |
| BSF2512SNRB101MT | 100.0 | 2800 | 7 | 0.16 | 0.35 |
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※Test Frequency: 1MHz/0.1V

※Tolerance: M \pm 20%

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40 $^{\circ}\text{C}$

※Operating temperature range : -40 to +125 $^{\circ}\text{C}$ (including self-heating)

※Storage Temp. : -40 $^{\circ}\text{C}$ TO+85 $^{\circ}\text{C}$

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