

# SPECIFICATION OF BSF□□□□BNRM SERIES

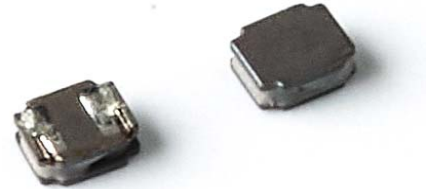
## FEATURES

1. Low profile construction and miniature size.
2. Magnetic shielded construction.
3. High current saturation.
4. For new generation portable product D/D converter unit.



## APPLICATIONS

DVD · DSC · PDA · LCD display ·  
Smart phones · HDD · etc.



## ORDERING CODE

BSF2512BNRM 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

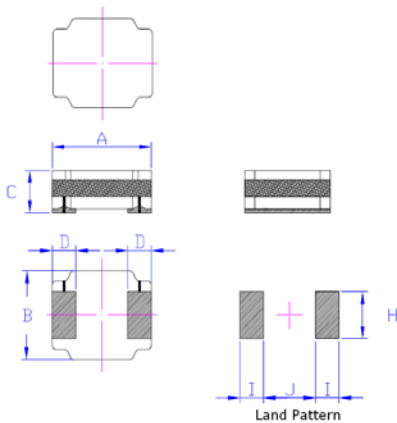


FIG 1

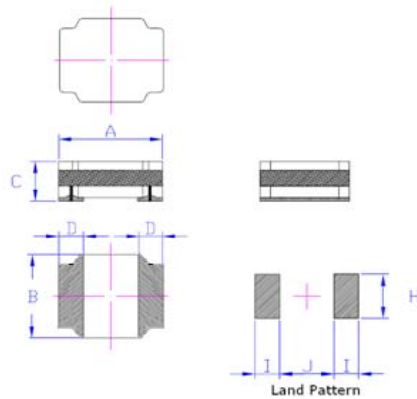


FIG 2

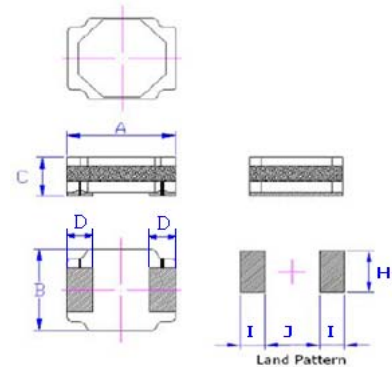


FIG 3

## SHAPE & DIMENSIONS

| SIZE CODE   | A<br>mm | B<br>mm | C<br>mm | D<br>mm   | H    | I    | J    | FIG |  |  |
|-------------|---------|---------|---------|-----------|------|------|------|-----|--|--|
| BSF2010BNRM | 2.0±0.2 | 1.6±0.2 | 1.05max | 0.6±0.2   | 1.10 | 1.00 | 0.90 | 1   |  |  |
| BSF2512BNRM | 2.5±0.2 | 2.1±0.2 | 1.25max | 0.85±0.20 | 1.40 | 0.95 | 0.90 | 1   |  |  |
| BSF3015BNRM | 3.0±0.2 | 3.0±0.2 | 1.55max | 0.9±0.2   | 2.90 | 1.00 | 1.20 | 2   |  |  |
| BSF6030BNRM | 6.0±0.2 | 6.0±0.2 | 3.0±0.2 | 1.9±0.3   | 5.70 | 2.00 | 2.00 | 3   |  |  |
|             |         |         |         |           |      |      |      |     |  |  |
|             |         |         |         |           |      |      |      |     |  |  |

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# SMD POWER INDUCTORS → BSF2010BNRM SERIES

## ELECTRICAL CHARACTERISTIC

| ORDERING CODE    | Inductance<br>( $\mu\text{H}$ ) | DC Resistance<br>( $\text{m}\Omega$ )max | SRF(MHz)<br>min | Isat<br>(A)max | IDC<br>(A)max |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF2010BNRMR22MT | 0.22                            | 24                                       | 115             | 7.00           | 4.50          |
| BSF2010BNRMR33MT | 0.33                            | 34                                       | 90              | 5.00           | 3.50          |
| BSF2010BNRMR47MT | 0.47                            | 57                                       | 70              | 3.30           | 2.40          |
| BSF2010BNRMR68MT | 0.68                            | 66                                       | 55              | 2.80           | 2.30          |
| BSF2010BNRMR82MT | 0.82                            | 85                                       | 45              | 2.50           | 2.10          |
| BSF2010BNRM1R0MT | 1.00                            | 90                                       | 40              | 2.30           | 2.10          |
| BSF2010BNRM1R2MT | 1.20                            | 100                                      | 35              | 2.20           | 1.60          |
| BSF2010BNRM1R5MT | 1.50                            | 148                                      | 35              | 1.90           | 1.50          |
| BSF2010BNRM1R8MT | 1.80                            | 170                                      | 30              | 1.70           | 1.40          |
| BSF2010BNRM2R2MT | 2.20                            | 185                                      | 30              | 1.60           | 1.40          |
| BSF2010BNRM3R3MT | 3.30                            | 290                                      | 20              | 1.30           | 1.00          |
| BSF2010BNRM4R7MT | 4.70                            | 350                                      | 20              | 1.10           | 0.90          |
| BSF2010BNRM6R8MT | 6.80                            | 470                                      | 20              | 0.95           | 0.88          |
| BSF2010BNRM100MT | 10.00                           | 850                                      | 20              | 0.80           | 0.77          |
| BSF2010BNRM150MT | 15.00                           | 1400                                     | 7.0             | 0.60           | 0.46          |
|                  |                                 |  |                 |                |               |
|                  |                                 |  |                 |                |               |
|                  |                                 |  |                 |                |               |
|                  |                                 |  |                 |                |               |

※Test Frequency: 1MHz/0.1V

※Tolerance:  $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

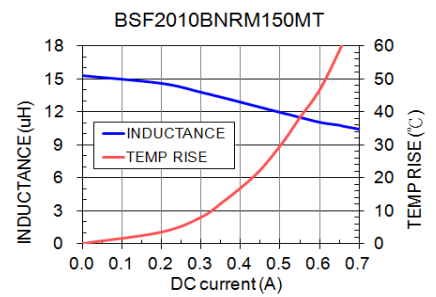
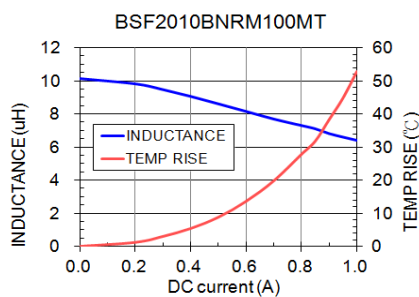
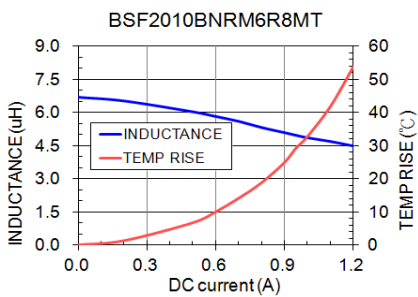
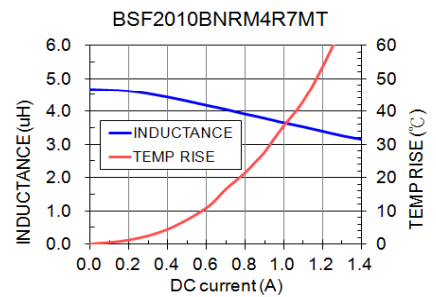
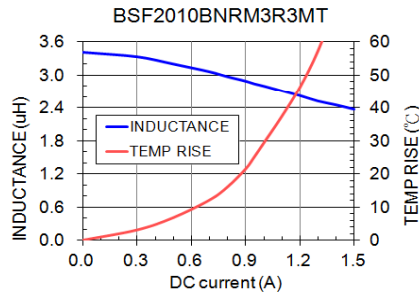
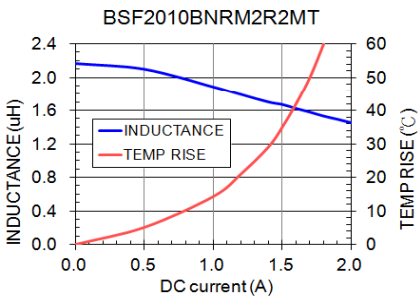
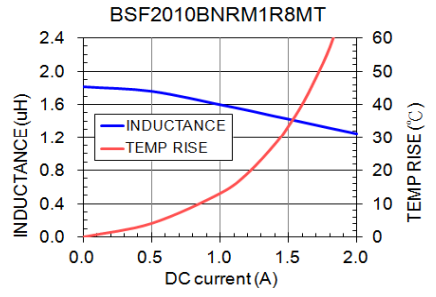
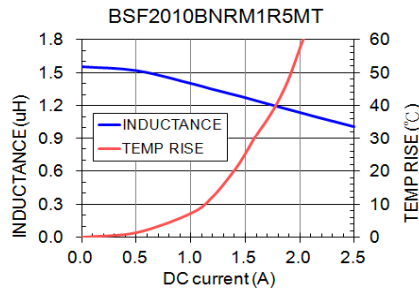
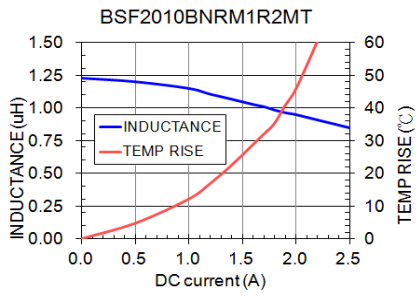
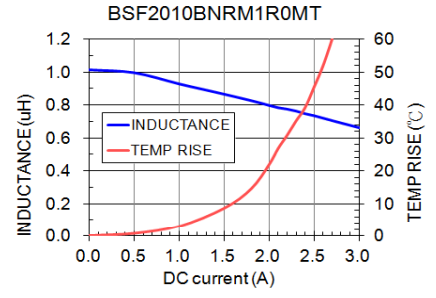
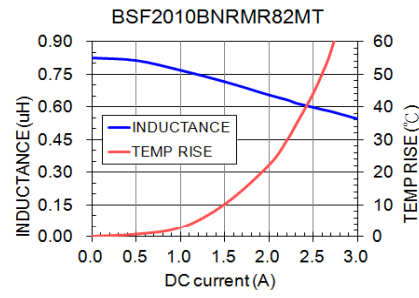
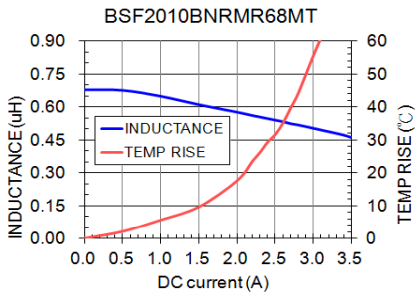
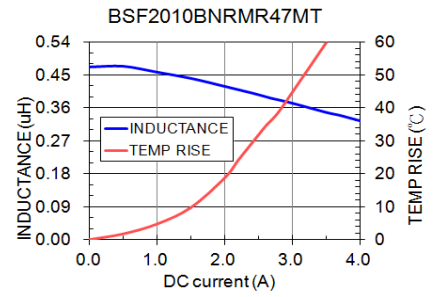
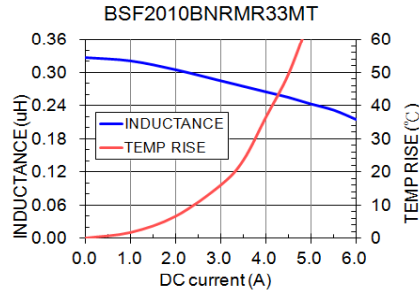
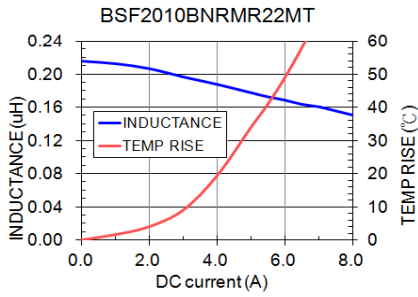
※Operating temperature range : -40 to +125°C (including self-heating)

※Storage Temp. : -40°C T0+85°C

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# SMD POWER INDUCTORS → BSF2010BNRM SERIES

## ELECTRICAL CHARACTERISTIC



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# SMD POWER INDUCTORS → BSF2512BNRM SERIES

## ELECTRICAL CHARACTERISTIC

| ORDERING CODE    | Inductance<br>( $\mu$ H) | DC Resistance<br>( $m\Omega$ )max | SRF(MHz)<br>min | Isat<br>(A)max | IDC<br>(A)max |
|------------------|--------------------------|-----------------------------------|-----------------|----------------|---------------|
| BSF2512BNRMR20MT | 0.20                     | 24                                | 120             | 7.00           | 4.20          |
| BSF2512BNRMR33MT | 0.33                     | 28                                | 85              | 5.70           | 3.80          |
| BSF2512BNRMR47MT | 0.47                     | 34                                | 80              | 4.50           | 3.60          |
| BSF2512BNRMR68MT | 0.68                     | 43                                | 70              | 4.10           | 3.60          |
| BSF2512BNRM1R0MT | 1.00                     | 55                                | 55              | 3.50           | 3.20          |
| BSF2512BNRM1R2MT | 1.20                     | 56                                | 40              | 3.00           | 3.10          |
| BSF2512BNRM1R5MT | 1.50                     | 70                                | 40              | 2.70           | 2.50          |
| BSF2512BNRM2R2MT | 2.20                     | 95                                | 35              | 2.30           | 2.10          |
| BSF2512BNRM3R3MT | 3.30                     | 150                               | 25              | 1.70           | 1.70          |
| BSF2512BNRM4R7MT | 4.70                     | 230                               | 20              | 1.40           | 1.40          |
| BSF2512BNRM6R8MT | 6.80                     | 350                               | 15              | 1.30           | 1.20          |
| BSF2512BNRM100MT | 10.00                    | 450                               | 15              | 1.00           | 1.00          |
| BSF2512BNRM150MT | 15.00                    | 620                               | 10              | 0.80           | 0.70          |
| BSF2512BNRM220MT | 22.00                    | 790                               | 7               | 0.65           | 0.65          |
|                  |                          |                                   |                 |                |               |
|                  |                          |                                   |                 |                |               |
|                  |                          |                                   |                 |                |               |
|                  |                          |                                   |                 |                |               |

※Test Frequency: 1MHz/0.1V

※Tolerance: M $\pm$ 20%

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

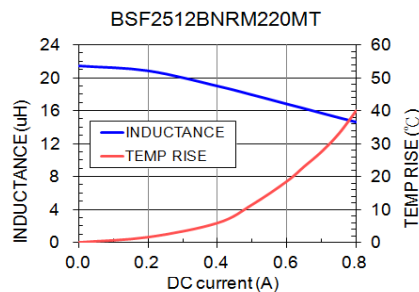
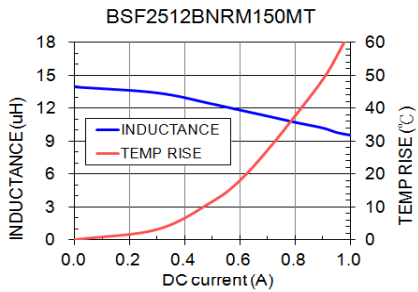
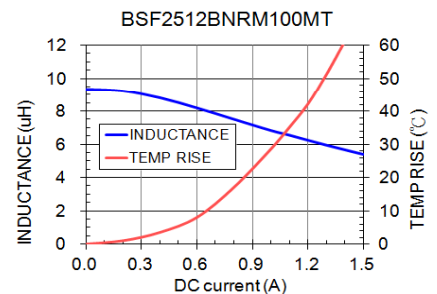
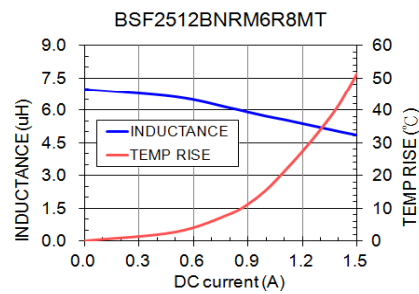
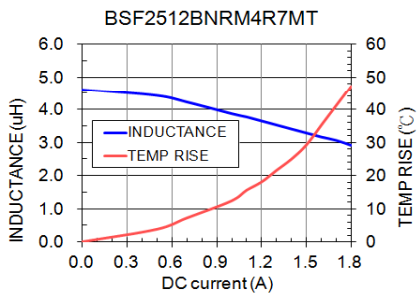
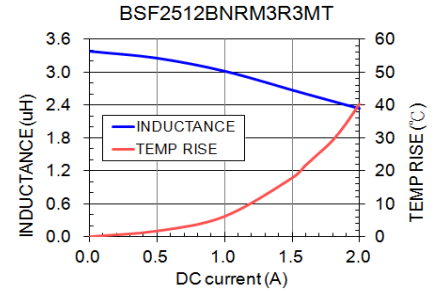
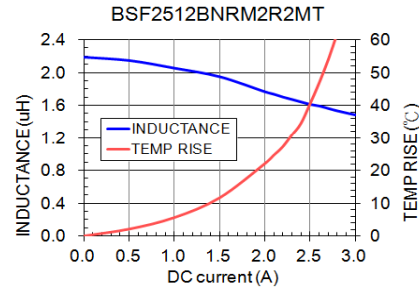
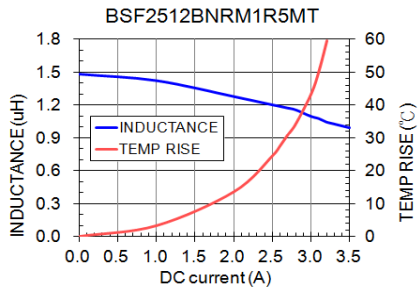
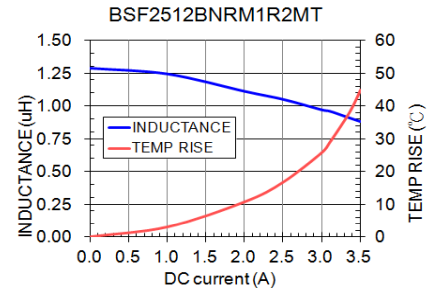
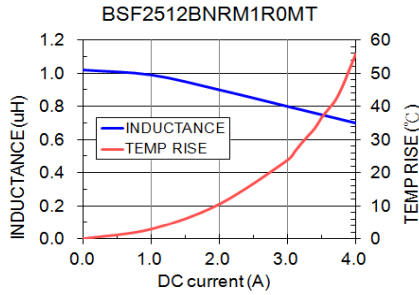
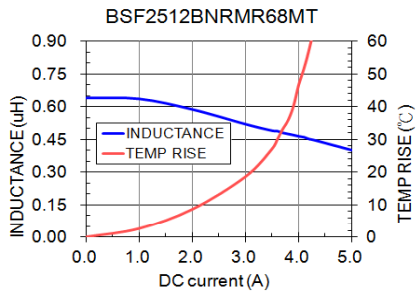
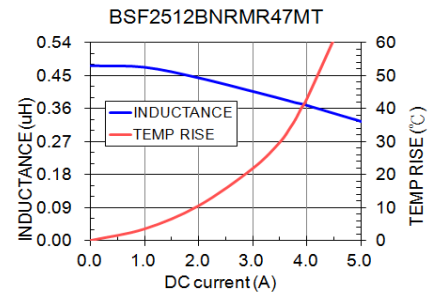
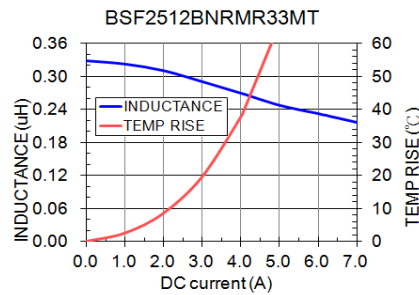
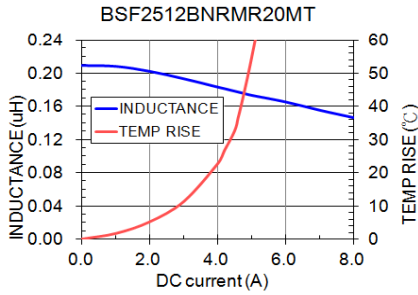
※Operating temperature range : -40 to +125°C (including self-heating)

※Storage Temp. : -40°C T0+85°C

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# SMD POWER INDUCTORS → BSF2512BNRM SERIES

## ELECTRICAL CHARACTERISTIC

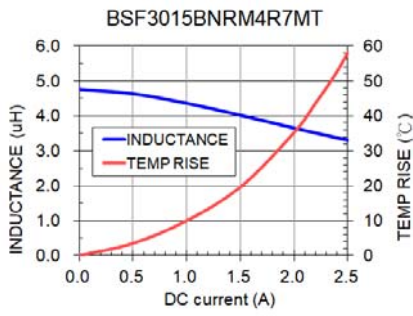
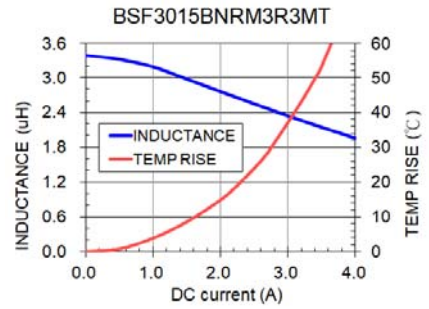
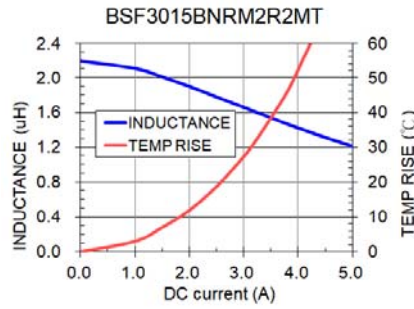
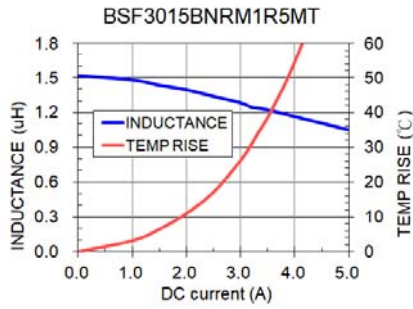


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# SMD POWER INDUCTORS → BSF3015BNRM SERIES

## ELECTRICAL CHARACTERISTIC



※Test Frequency: 100KHz/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)

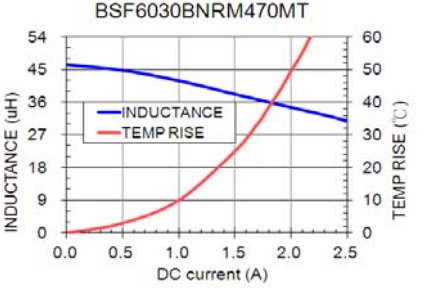
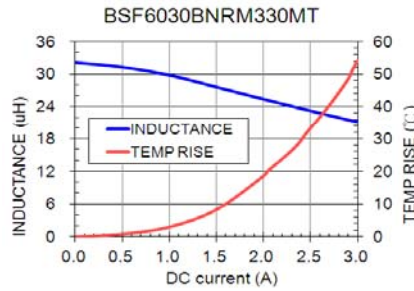
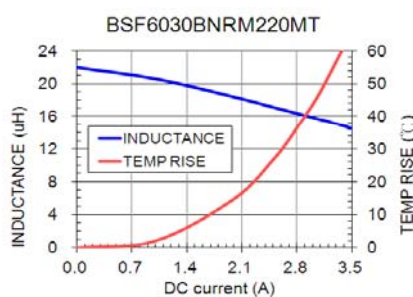
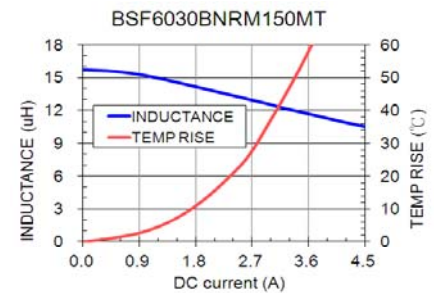
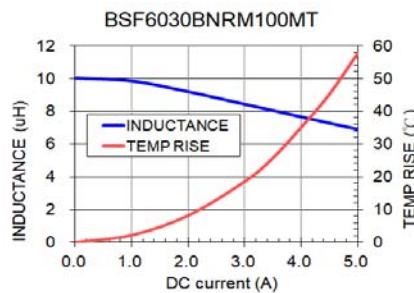
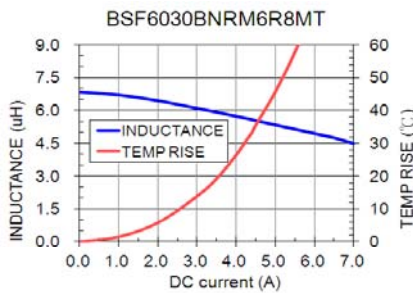
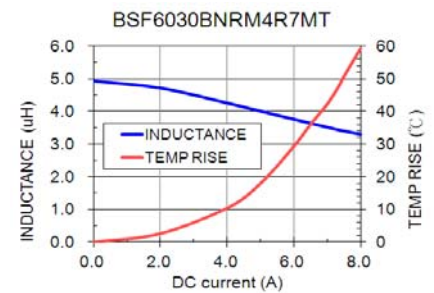
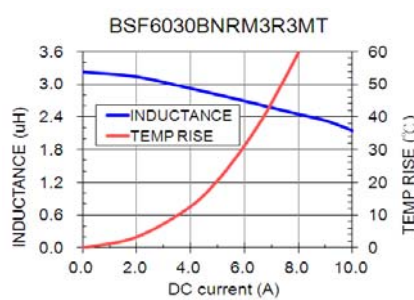
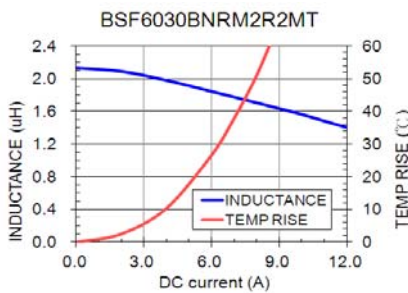
※Storage Temp. : -40°C T0+85°C

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# SMD POWER INDUCTORS → BSF6030BNRM SERIES

## ELECTRICAL CHARACTERISTIC

| ORDERING CODE    | Inductance<br>( $\mu\text{H}$ ) | DC Resistance<br>( $\text{m}\Omega$ )max | SRF(MHz)<br>min | Isat<br>(A)Typ | IDC<br>(A)Typ |
|------------------|---------------------------------|--|-----------------|----------------|---------------|
| BSF6030BNRM2R2MT | 2.20                            | 27                                       | 20              | 10.3           | 7.20          |
| BSF6030BNRM3R3MT | 3.30                            | 35                                       | 20              | 9.00           | 6.80          |
| BSF6030BNRM4R7MT | 4.70                            | 45                                       | 15              | 7.20           | 6.60          |
| BSF6030BNRM6R8MT | 6.80                            | 65                                       | 13              | 6.40           | 4.60          |
| BSF6030BNRM100MT | 10.0                            | 82                                       | 7               | 4.80           | 4.10          |
| BSF6030BNRM150MT | 15.0                            | 150                                      | 7               | 4.00           | 3.00          |
| BSF6030BNRM220MT | 22.0                            | 170                                      | 5               | 3.20           | 2.90          |
| BSF6030BNRM330MT | 33.0                            | 250                                      | 3               | 2.60           | 2.60          |
| BSF6030BNRM470MT | 47.0                            | 360                                      | 2.5             | 2.30           | 1.80          |



※Test Frequency: 100KHz/1V

※Tolerance:  $M \pm 20\%$

※Isat: Based on Inductance decrease 30%

※IDC: Based on Temperature increase 40°C

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

※Storage Temp. :  $-40^\circ\text{C}$  T0 $+85^\circ\text{C}$

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