

SPECIFICATION OF BSFQ□□□BNRM SERIES

AEC-Q200



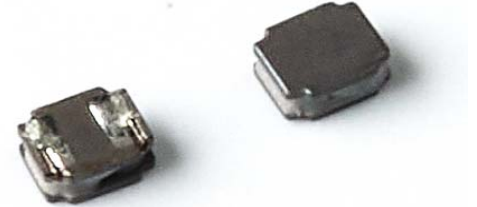
FEATURES

1. SMT designed ferrite/alloy core with magnetic resin coating components for power circuits.
2. High magnetic shielding construction and acted high performance for EMC/EMI protection.
3. Low coil resistance with high current application.
4. Compatible with Pb-free RoHS and AEC-Q200.



APPLICATIONS

- 1 Automotive application



ORDERING CODE

BSFQ2512BNRM 1R0 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

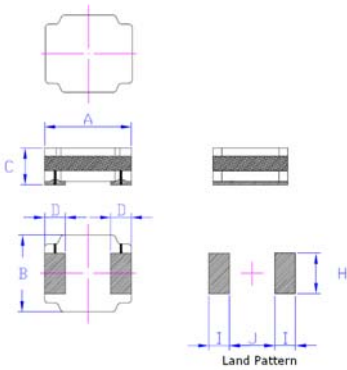


FIG 1

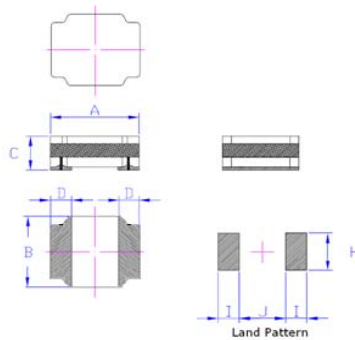


FIG 2

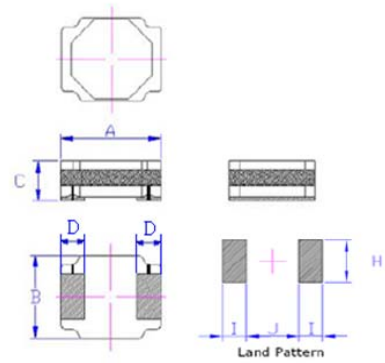


FIG 3

SHAPE & DIMENSIONS

UNIT:mm

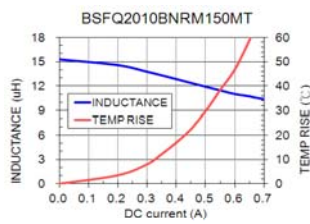
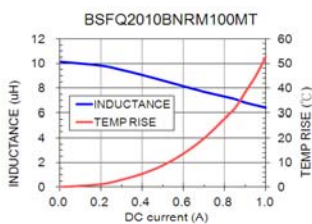
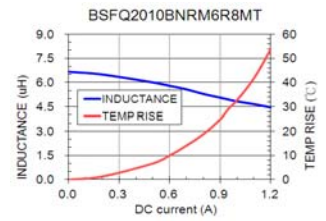
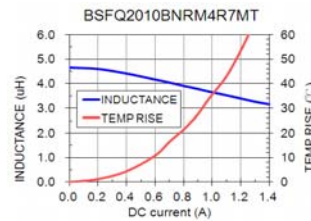
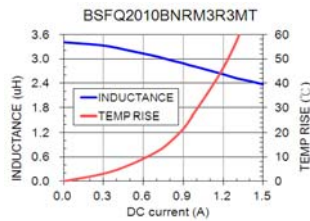
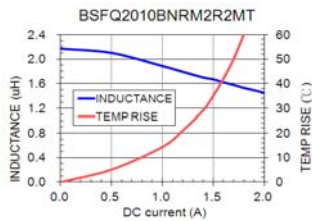
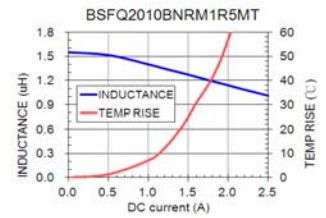
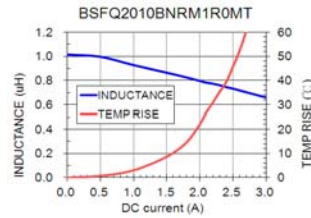
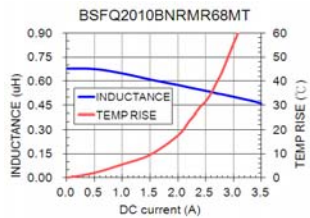
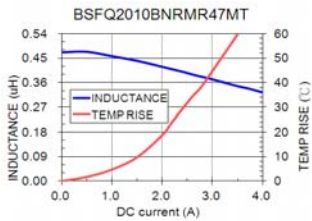
SIZE CODE	A mm	B mm	C mm	D mm	H	I	J	FIG				
BSFQ2010BNRM	2.0±0.2	1.6±0.2	1.05max	0.6±0.2	1.10	1.00	0.90	1				
BSFQ2512BNRM	2.5±0.2	2.1±0.2	1.25max	0.85±0.20	1.40	0.95	0.90	1				
BSFQ3015BNRM	3.0±0.2	3.0±0.2	1.55max	0.9±0.2	2.90	1.00	1.20	2				
BSFQ6030BNRM	6.0±0.2	6.0±0.2	3.0±0.2	1.9±0.3	5.70	2.00	2.00	3				
BSFQ6030BNRMX	6.0±0.2	6.0±0.2	3.0±0.2	1.9±0.3	5.70	2.00	2.00	1				

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SMD POWER INDUCTORS → BSFQ2010BNRM SERIES

ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance (μH)	DC Resistance (mΩ)max	SRF(MHz) min	Isat (A)max	IDC (A)max
BSFQ2010BNRMR47MT	0.47	57	70	3.30	2.40
BSFQ2010BNRMR68MT	0.68	66	55	2.80	2.30
BSFQ2010BNRM1R0MT	1.00	90	40	2.30	2.10
BSFQ2010BNRM1R5MT	1.50	148	35	1.90	1.50
BSFQ2010BNRM2R2MT	2.20	185	30	1.60	1.40
BSFQ2010BNRM3R3MT	3.30	290	20	1.30	1.00
BSFQ2010BNRM4R7MT	4.70	350	20	1.10	0.90
BSFQ2010BNRM6R8MT	6.80	470	20	0.95	0.88
BSFQ2010BNRM100MT	10.00	850	20	0.80	0.77
BSFQ2010BNRM150MT	15.00	1400	7	0.60	0.46



※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)

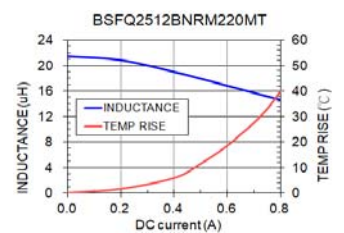
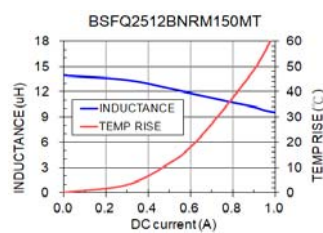
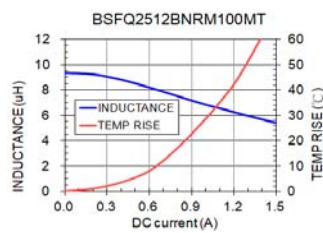
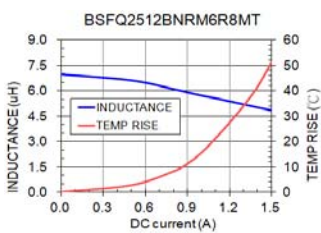
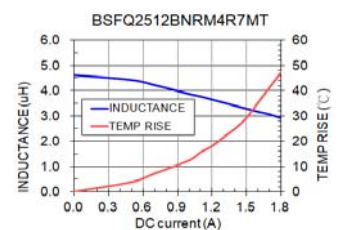
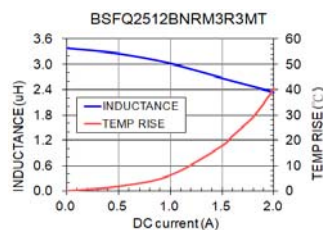
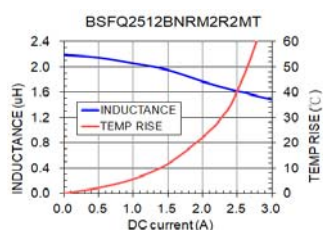
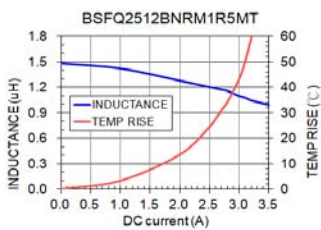
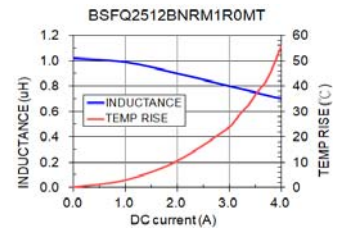
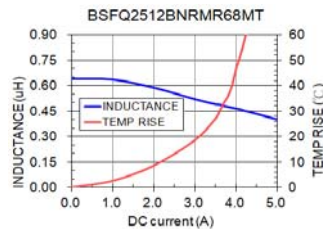
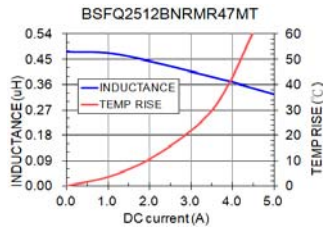
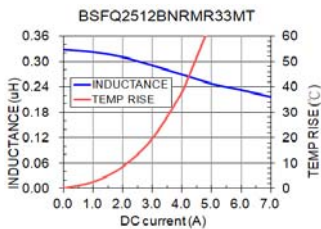
※Storage Temp. : -40°C TO+85°C

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SMD POWER INDUCTORS → BSFQ2512BNRM SERIES

ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance (μH)	DC Resistance (mΩ)max	SRF(MHz) min	Isat (A)max	IDC (A)max
BSFQ2512BNRMR33MT	0.33	28	85	5.70	3.80
BSFQ2512BNRMR47MT	0.47	34	80	4.50	3.60
BSFQ2512BNRMR68MT	0.68	43	70	4.10	3.60
BSFQ2512BNRM1R0MT	1.00	55	55	3.50	3.20
BSFQ2512BNRM1R5MT	1.50	70	40	2.70	2.50
BSFQ2512BNRM2R2MT	2.20	95	35	2.30	2.10
BSFQ2512BNRM3R3MT	3.30	150	25	1.70	1.70
BSFQ2512BNRM4R7MT	4.70	230	20	1.40	1.40
BSFQ2512BNRM6R8MT	6.80	350	15	1.30	1.20
BSFQ2512BNRM100MT	10.00	450	15	1.00	1.00
BSFQ2512BNRM150MT	15.00	620	10	0.80	0.70
BSFQ2512BNRM220MT	22.00	790	7	0.65	0.65



※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)

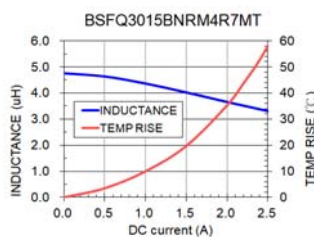
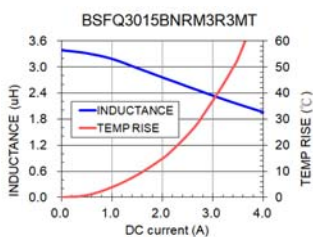
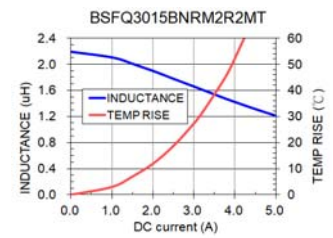
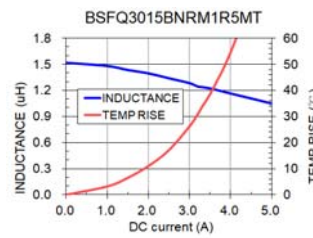
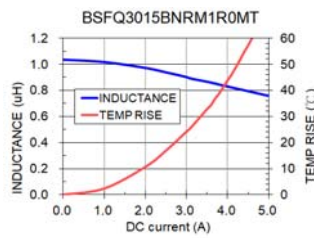
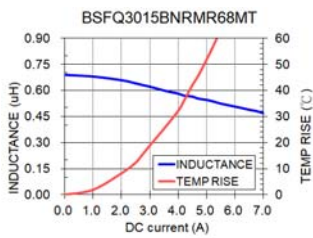
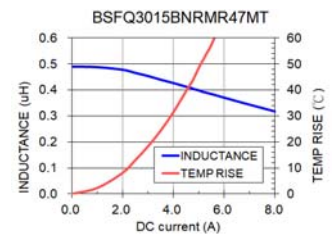
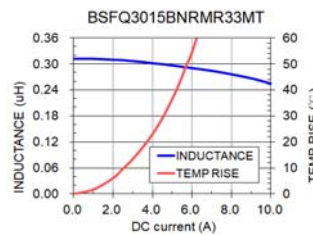
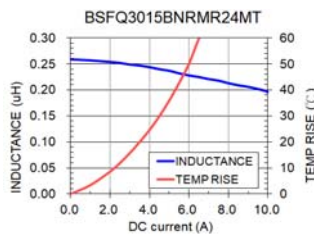
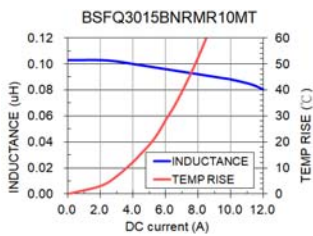
※Storage Temp. : -40°C TO+85°C

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SMD POWER INDUCTORS → BSFQ3015BNRM SERIES

ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance (μH)	DC Resistance (mΩ)max	SRF(MHz) min	Isat (A)Typ	IDC 1 (A)max	IDC 2 (@125°C) (A)Typ
BSFQ3015BNRMR10MT	0.10	23	200	11.00	7.00	4.00
BSFQ3015BNRMR24MT	0.24	30	110	10.00	5.20	3.00
BSFQ3015BNRMR33MT	0.33	37	85	9.00	5.10	2.80
BSFQ3015BNRMR47MT	0.47	37	75	7.20	4.50	2.50
BSFQ3015BNRMR68MT	0.68	43	65	6.50	4.40	2.40
BSFQ3015BNRM1R0MT	1.00	49	45	5.00	3.80	2.10
BSFQ3015BNRM1R5MT	1.50	62	35	4.50	3.50	2.00
BSFQ3015BNRM2R2MT	2.20	70	30	3.50	3.50	1.90
BSFQ3015BNRM3R3MT	3.30	100	20	2.80	3.00	1.70
BSFQ3015BNRM4R7MT	4.70	190	20	2.40	2.00	1.10



※Test Frequency: 100KHz/1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC 1: Based on Temperature increase 40°C

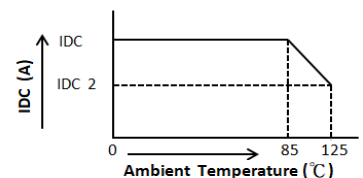
※ IDC 2: Temperature rising less than 40°C under temp=125°C

※ As shown in the diagram below, de-rating current is applied, which based on the operating temperature.

※Operating temperature range : -40 to +165°C (including self-heating)

※The Operating Temperature (which was defined as ambient temp. + parts temp rising) should not exceed 165°C

※Storage Temp. : -40°C TO+85°C

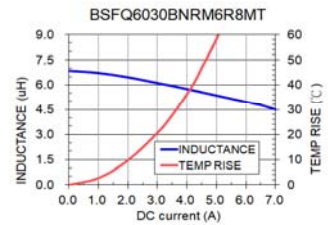
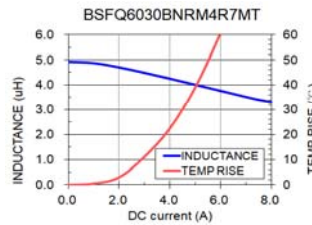
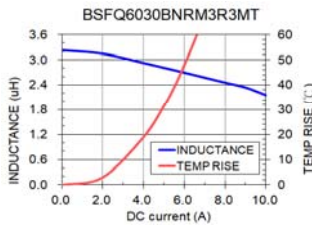
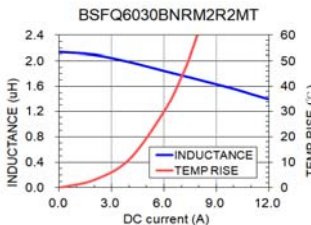
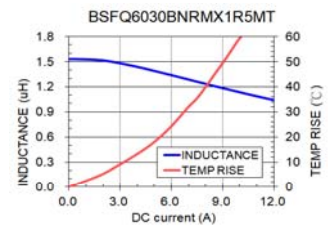
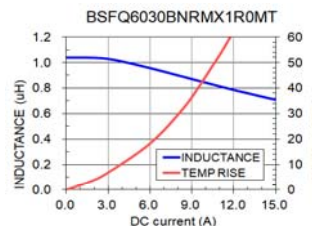
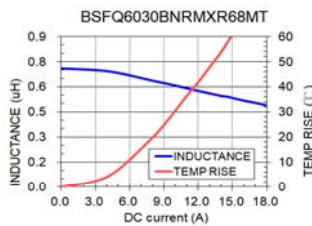
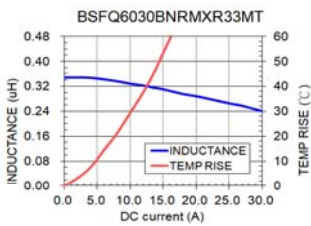


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SMD POWER INDUCTORS → BSFQ6030BNRMX SERIES

ELECTRICAL CHARACTERISTIC

ORDERING CODE	Inductance (μH)	DC Resistance (mΩ)max	SRF(MHz) min	Isat (A)Typ	IDC 40°C (A)Typ	IDC 2 (@125°C) (A)Typ
BSFQ6030BNRMXR33MT	0.33	9	75	24.0	12.0	8.1
BSFQ6030BNRMXR68MT	0.68	12	45	17.0	11.0	6.6
BSFQ6030BNRMX1R0MT	1.00	14	40	14.0	9.0	5.4
BSFQ6030BNRMX1R5MT	1.50	20	30	10.5	7.5	4.5
BSFQ6030BNRM2R2MT	2.20	27	20	10.3	6.8	3.7
BSFQ6030BNRM3R3MT	3.30	35	20	9.0	5.6	3.1
BSFQ6030BNRM4R7MT	4.70	45	15	7.2	5.2	2.9
BSFQ6030BNRM6R8MT	6.80	65	13	6.4	4.2	2.3
BSFQ6030BNRM100MT	10.0	82	7	4.8	4.0	2.2
BSFQ6030BNRM150MT	15.0	150	7	4.0	2.8	1.5
BSFQ6030BNRM220MT	22.0	170	5	3.2	2.6	1.4
BSFQ6030BNRM330MT	33.0	250	2.5	2.6	2.3	1.3
BSFQ6030BNRM470MT	47.0	360	2.5	2.3	1.8	1.0



※Test Frequency: 100KHz/1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC 1: Based on Temperature increase 40°C

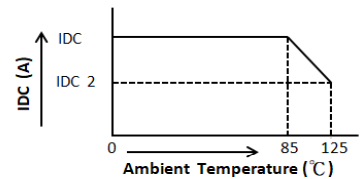
※ IDC 2: Temperature rising less than 40°C under temp=125°C

※ As shown in the diagram below, de-rating current is applied, which based on the operating temperature.

※Operating temperature range : -40 to +165°C (including self-heating)

※The Operating Temperature (which was defined as ambient temp.+ parts temp rising) should not exceed 165°C

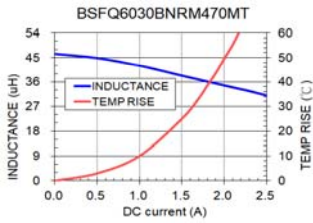
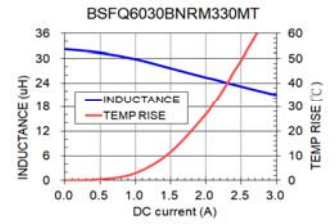
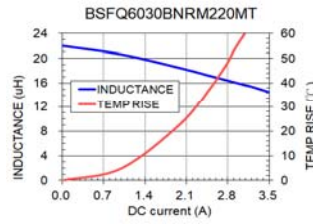
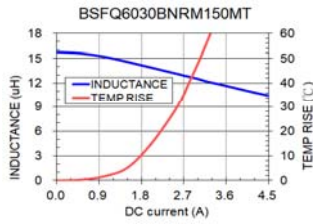
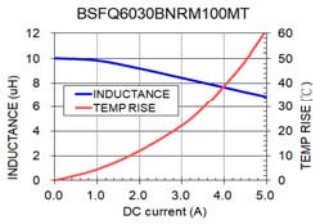
※Storage Temp. : -40°C TO+85°C



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SMD POWER INDUCTORS → BSFQ6030BNRMX SERIES

ELECTRICAL CHARACTERISTIC



※Test Frequency: 100KHz/1V

※Tolerance: M±20%

※Isat: Based on Inductance decrease 30%

※IDC 1: Based on Temperature increase 40°C

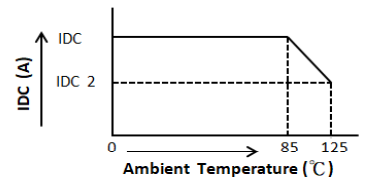
※ IDC 2: Temperature rising less than 40°C under temp=125°C

※ As shown in the diagram below, de-rating current is applied, which based on the operating temperature.

※Operating temperature range : -40 to +165°C (including self-heating)

※The Operating Temperature (which was defined as ambient temp.+ parts temp rising) should not exceed 165°C

※Storage Temp. : -40°C TO+85°C



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