



The BDQQ series is the special design to enhance the performance of PFM and PWM applications. It provides lower R_{ac} value at light load and lower R_{dc} value at heavy load to improve efficiency performance. Furthermore, it provides excellent saturation current to reduce the ripple current and enhance efficiency.

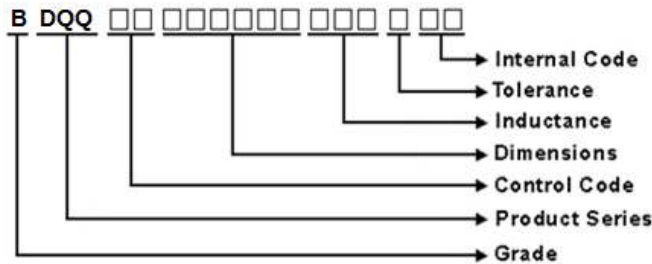
Features

- Chip Size: 1412 and 2012
- Low profile: 0.65mm and 0.8mm
- Inductance: 0.33uH, 0.47uH, and 1.0uH
- Low R_{dc} for better power efficiency management
- High saturation current
- Special patented design for bottom termination

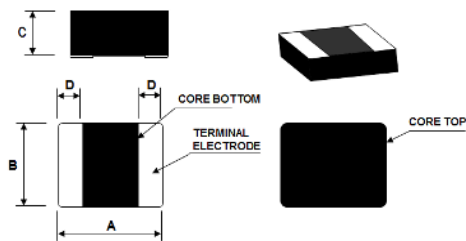
Applications

- DC-DC buck converter for power management
- 5G, Cell phone

Product Identification



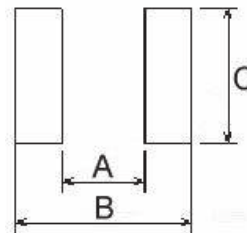
Chip Shape and Dimensions



Dimensions in mm

TYPE	A	B	C	D
BDQQ001412FE	1.4±0.2	1.2±0.2	0.65 Max.	0.5 Typ.
BDQQ00141208	1.4±0.2	1.2±0.2	0.80 Max.	0.5 Typ.
BDQQ002012FE	2.0±0.2	1.25±0.2	0.65 Max.	0.5 Typ.
BDQQ00201208	2.0±0.2	1.25±0.2	0.80 Max.	0.5 Typ.

Recommended Pad Pattern



Dimensions in mm

TYPE	A	B	C
BDQQ001412FE	0.5	1.5	1.3
BDQQ00141208	0.5	1.5	1.3
BDQQ002012FE	0.7	2.2	1.45
BDQQ00201208	0.7	2.2	1.45

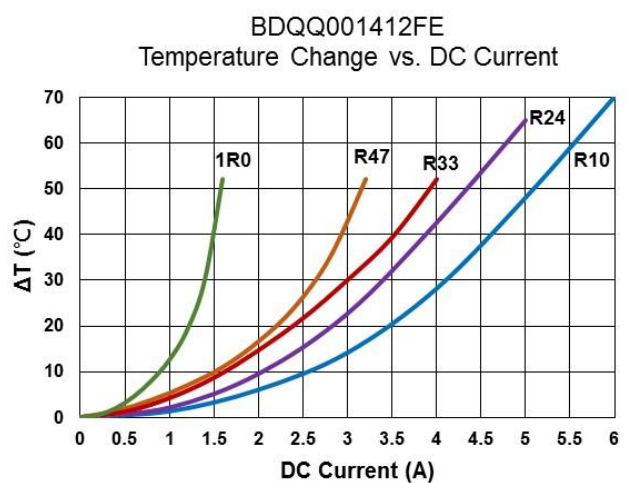
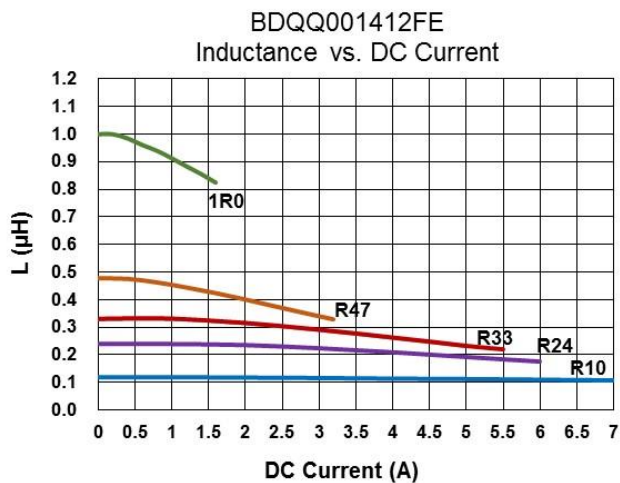
Electrical Characteristics

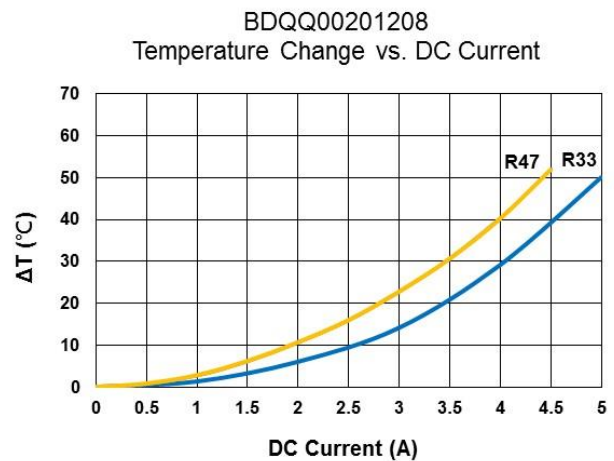
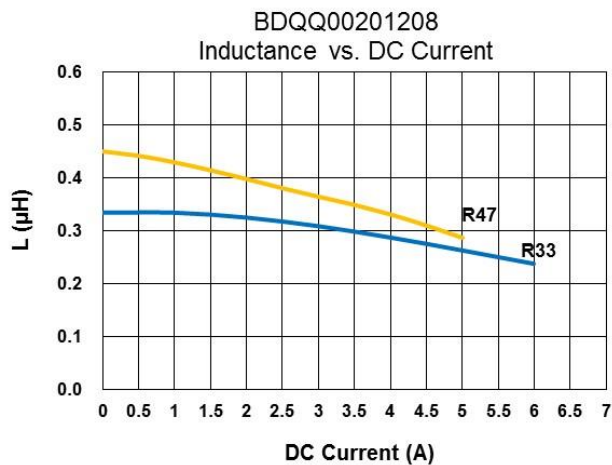
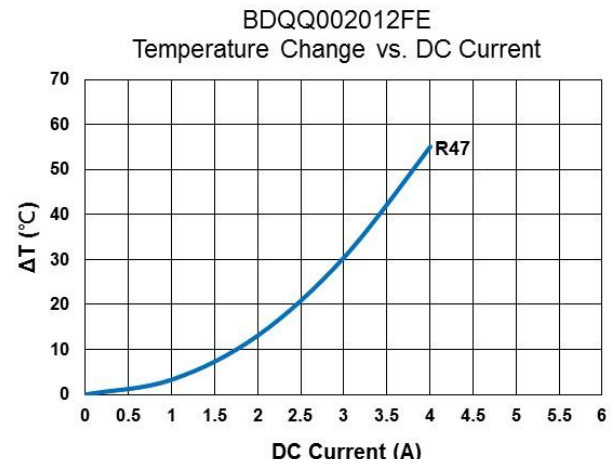
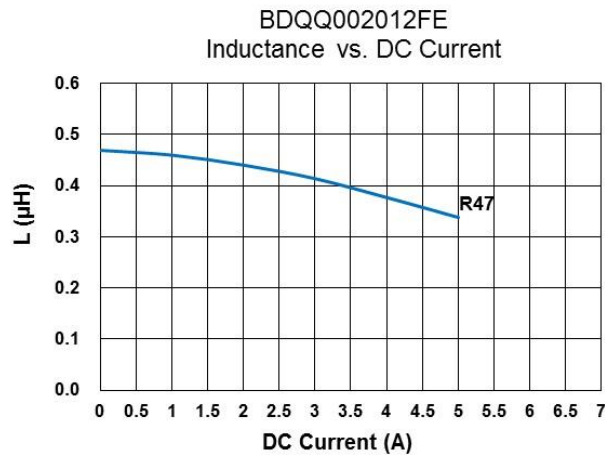
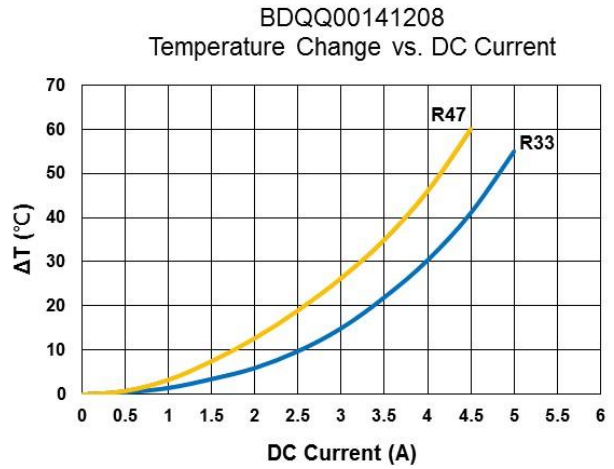
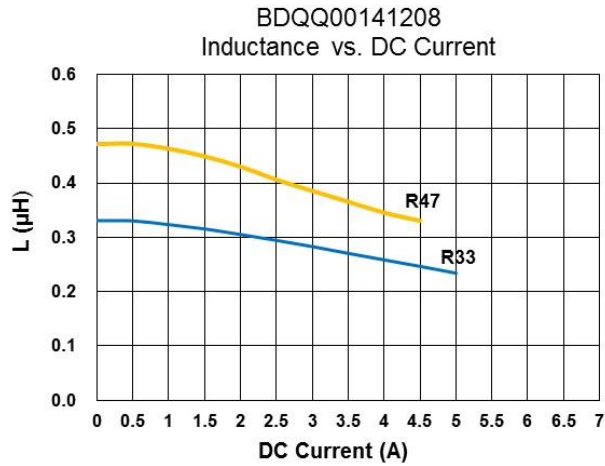
Part Number	Inductance (uH)	Tolerance (±%)	Test	RDC (mΩ) Max.	Isat (A) Max.	Irms (A) Max.
			Frequency (MHz)			
BDQQ001412FER11NCA	0.11	30	2	20	6.8	4.5
BDQQ001412FER24MCA	0.24	20	2	27	5.5	4.0
BDQQ001412FER33MCA	0.33	20	2	32	5.0	3.0
BDQQ001412FER47MCA	0.47	20	2	42	3.0	2.6
BDQQ001412FE1R0MCA	1.00	20	2	88	2.0	1.5
BDQQ00141208R33MCA	0.33	20	2	25	5.0	4.0
BDQQ00141208R47MCA	0.47	20	2	29	4.5	3.3
BDQQ002012FER47MCA	0.47	20	2	34	4.5	3.4
BDQQ00201208R33MCA	0.33	20	2	23	5.3	4.5
BDQQ00201208R47MCB	0.47	20	2	27	4.8	3.9

Note: Please be noted that the tolerance of 0.11uH is ±30% and others are ±20%

- Operating temperature range: -40°C~125°C (Including self-temperature rise)
- Isat for Inductance drop 30% from its initial inductance value without applying current
- Irms for a 40°C temperature rise from 25°C ambient with applying current
- Rated current: Isat or Irms, whichever is smaller
- Measure Equipment:
 L: WK 6500B/HP4285A (or equivalent), 2MHz 1V
 RDC: Chen Hwa 502BC/HP4338B (or equivalent)
 Isat: Agilent E4980A+HP42841A (or equivalent)
 Irms: Agilent 6641 system DC power supply (or equivalent)

Test Instruments : E4991A Impedance / Material Analyzer





For More Information:

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