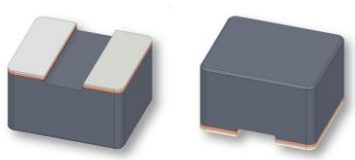
BDQQ Series



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

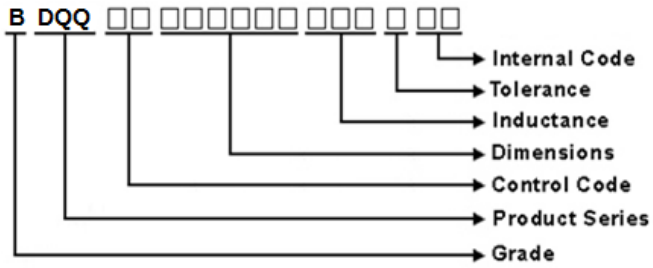
Features

- Chip Size: 1412
- Low profile: 0.65mm and 0.8mm
- Inductance: 0.11uH ~ 1.0uH
- Low Rdc for better power efficiency management
- High saturation current
- Special patented design for bottom termination

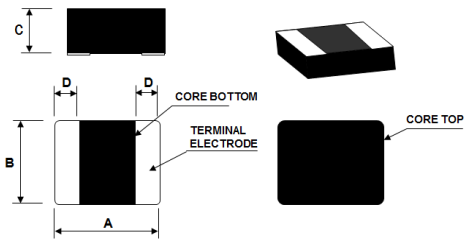
Applications

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

Product Identification



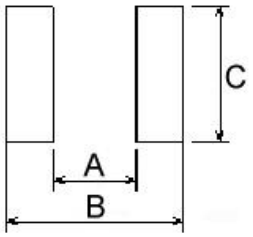
Chip Shape and Dimensions



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.

Recommended Pad Pattern



Dimensions in mm

TYPE	A	B	C
BDQQ001412FE	0.5	1.5	1.3
BDQQ00141208	0.5	1.5	1.3

Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (mΩ) Max.	Isat (A) Max.	Irms (A) Max.
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

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

- Operating temperature range: -40℃~125℃ (Including self-temperature rise)
- Isat for Inductance drop 30% from its initial inductance value without applying current
- Irms for a 40℃ temperature rise from 25℃ ambient with applying current
- Rated current: Isat or Irms, whichever is smaller
- Absolute maximum voltage: 15VDC

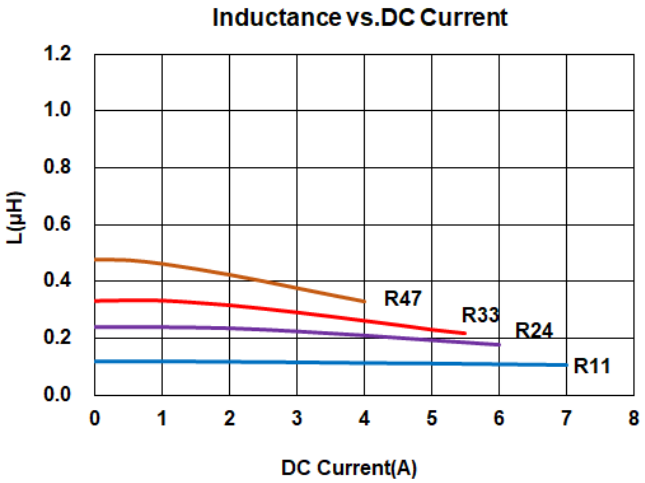
Test Instruments：

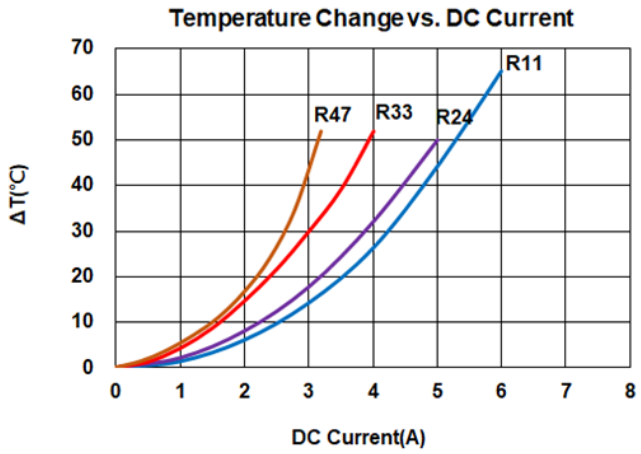
L: WK 6500B/HP4285A (or equivalent), 2MHz

RDC: Chen Hwa 502BC/HP4338B (or equivalent)

Isat: Agilent E4980A+HP42841A (or equivalent)

Irms: Agilent 6641 system DC power supply (or equivalent)





Electrical Characteristics

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (MHz)	RDC (mΩ) Max.	Isat (A) Max.	Irms (A) Max.
BDQQ00141208R33MCA	0.33	20	2	25	5.0	4.0
BDQQ00141208R47MCA	0.47	20	2	29	4.5	3.3

Note: When ordering, please specify tolerance code. Tolerance: M=±20%

- Operating temperature range: -40℃~125℃ (Including self-temperature rise)
- Isat for Inductance drop 30% from its initial inductance value without applying current
- Irms for a 40℃ temperature rise from 25℃ ambient with applying current
- Rated current: Isat or Irms, whichever is smaller
- Absolute maximum voltage: 15VDC

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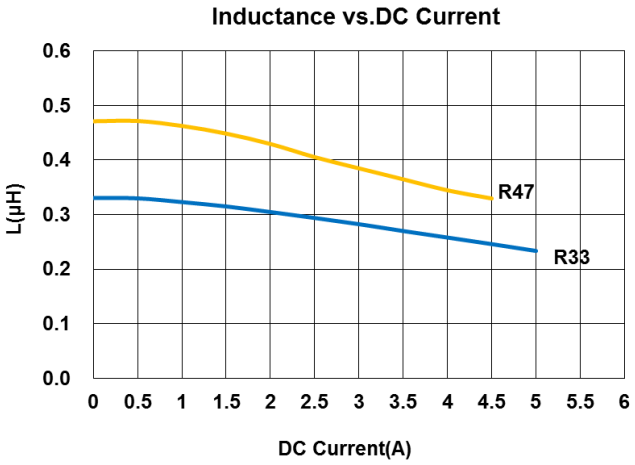
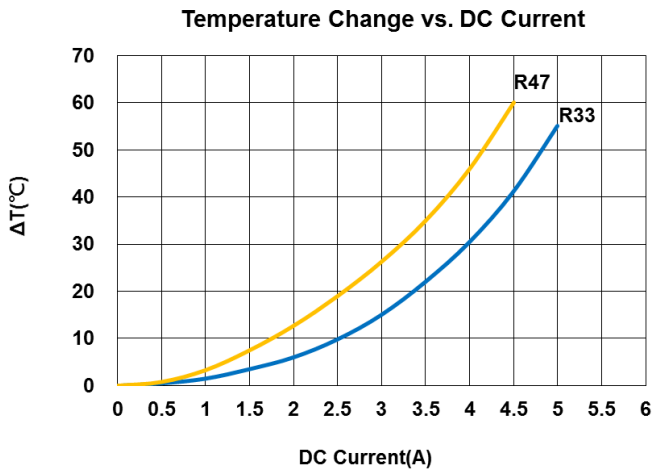
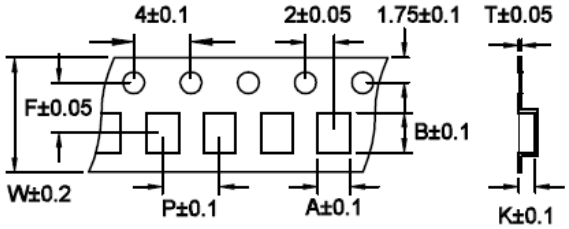


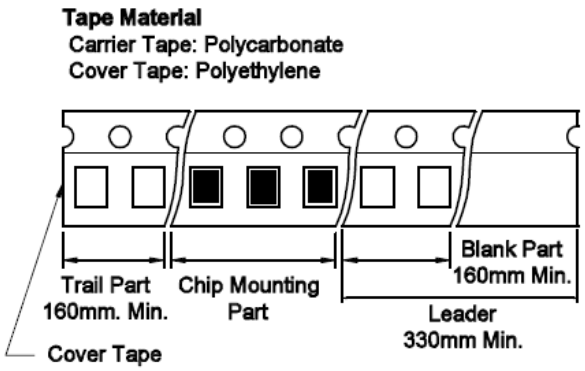


Packaging Specifications

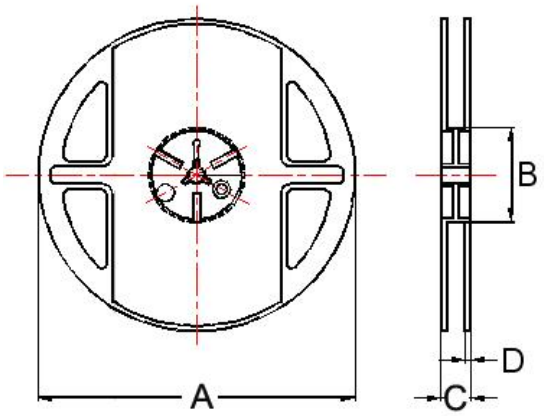
Tape Dimensions



Tape Material



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	A	B	T	W	P	F	K	A	B	C	D	PCS / REEL
BDQQ001412FE	1.48	1.67	0.20	8	4	3.5	0.82	178	60	12	1.5	4000
BDQQ00141208	1.48	1.69	0.20	8	4	3.5	0.92	178	60	12	1.5	4000