

BPAL Series



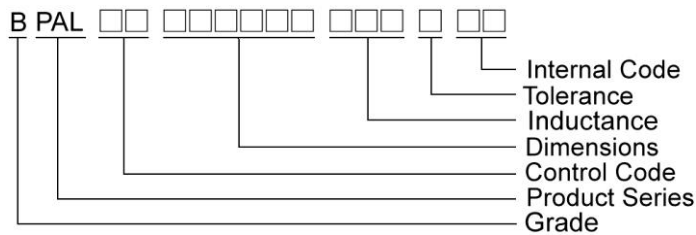
Features

- RoHS compliant
- Low Rdc and high saturation current for portable DC to DC converter line
- High magnetic shielding construction provides high resolution for EMC protection
- Support lead-free soldering

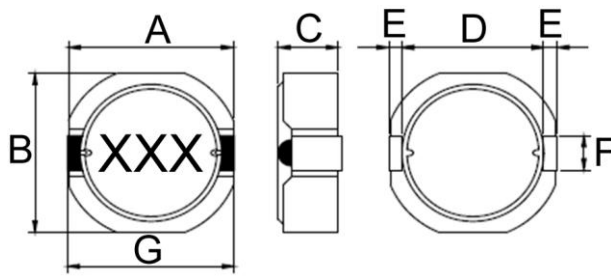
Applications

- Notebook PC
- Set top box
- LCD TV
- LCD displays
- Portable communication device
- DC/DC converters

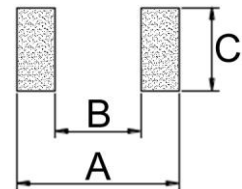
Product Identification



Shape and Dimensions



Recommended Pattern

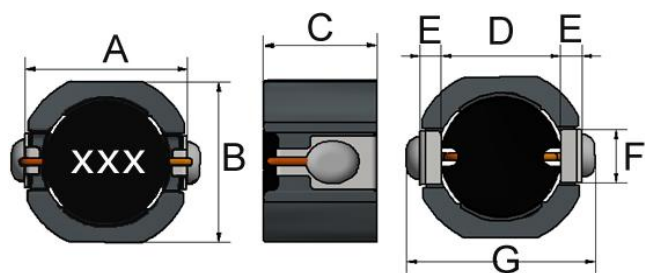


Dimensions in mm

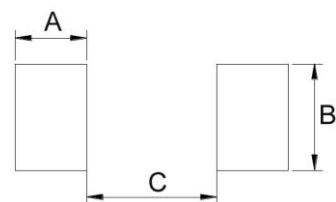
TYPE	Shape and Dimensions							Recommended Pattern		
	A	B	C	D	E	F	G	A	B	C
BPAL00060630	6.3Max	6.2Max	3.0Max	4.8	0.6	2.0	6.4Max	6.6	4.6	2.6

SMD Shielded Power Inductors – BPAL Series

Shape and Dimensions



Recommended Pattern



Dimensions in mm

TYPE	Shape and Dimensions							Recommended Pattern		
	A	B	C	D	E	F	G	A	B	C
BPAL00060645	6.2±0.3	6.0±0.3	4.5±0.3	4.6	0.8	2.0	7.2Max	1.5	2.2	4
BPAL00060645-0E	6.2±0.3	6.0±0.3	4.5±0.3	4.6	0.8	2.0	6.7Max	1.5	2.2	4
BPAL00080845	7.5±0.5	7.5±0.5	4.5Max	5.6	1.0	2.5	9.5Max	2.0	2.8	5.4

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) Max	Isat (A)Max	Irms (A)Typ	Marking
BPAL000606301R0□00	1.0	20,30	100	0.014	3.59	5.32	1R0
BPAL000606301R5□00	1.5	30	100	0.016	2.93	4.45	1R5
BPAL000606302R2□00	2.2	30	100	0.020	2.42	4.13	2R2
BPAL000606303R3□00	3.3	20,30	100	0.026	1.89	3.54	3R3
BPAL000606303R6□00	3.6	30	100	0.026	1.89	3.54	3R6
BPAL000606304R7□00	4.7	30	100	0.033	1.66	3.03	4R7
BPAL000606306R2□00	6.2	30	100	0.039	1.45	2.69	6R2
BPAL000606306R8□00	6.8	20,30	100	0.041	1.40	2.60	6R8
BPAL000606308R2□00	8.2	20,30	100	0.049	1.20	2.50	8R2
BPAL00060630100□00	10	20,30	100	0.059	1.14	2.25	100
BPAL00060630120□00	12	20,30	100	0.063	1.04	2.12	120
BPAL00060630150□00	15	20,30	100	0.075	0.93	2.04	150
BPAL00060630180□00	18	20,30	100	0.089	0.85	1.86	180
BPAL00060630220□00	22	20,30	100	0.115	0.77	1.58	220
BPAL00060630270□00	27	20,30	100	0.144	0.70	1.35	270
BPAL00060630330□00	33	20,30	100	0.168	0.63	1.19	330
BPAL00060630390□00	39	20,30	100	0.180	0.58	1.16	390
BPAL00060630470□00	47	20,30	100	0.225	0.53	1.05	470
BPAL00060630560□00	56	20,30	100	0.264	0.48	0.97	560
BPAL00060630680□00	68	20,30	100	0.324	0.44	0.87	680
BPAL00060630820□00	82	20,30	100	0.396	0.40	0.76	820
BPAL00060630101□00	100	20,30	100	0.498	0.36	0.69	101
BPAL00060630151□00	150	20,30	100	0.738	0.31	0.52	151
BPAL00060630221□00	220	20,30	100	1.4	0.28	0.45	221
BPAL00060630331□00	330	20,30	100	2.1	0.18	0.42	331

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat or Irms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω) Max	Isat (A)Max	Irms (A)Typ	Marking
BPAL000606302R2□AE	2.2	30	100	24.8	5.5	3.8	2R2
BPAL000606303R3□AE	3.3	30	100	20.3	2.3	2.3	3R3
BPAL000606304R7□AE	4.7	30	100	43.1	3.7	2.8	4R7
BPAL000606305R6□AE	5.6	30	100	47.9	3.3	2.7	5R6
BPAL00060630100□AE	10	20,30	100	93	3.0	2.05	100

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 35% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat or I rms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω)	Isat (A)Max	Irms (A)Typ	Marking
BPAL000606451R0□00	1.0	30	100	0.011±30%	6.7	4.8	1R0
BPAL000606451R5□00	1.5	30	100	0.013±30%	5.5	4.5	1R5
BPAL000606452R2□00	2.2	30	100	0.015±30%	4.2	4.1	2R2
BPAL000606453R3□00	3.3	30	100	0.019±30%	3.5	3.7	3R3
BPAL000606454R7□00	4.7	30	100	0.023±30%	3.1	3.3	4R7
BPAL000606456R8□00	6.8	30	100	0.027±30%	2.5	3.1	6R8
BPAL00060645100□00	10	20,30	100	0.035±20%	2.1	2.6	100
BPAL00060645150□00	15	20,30	100	0.060±20%	1.7	2.0	150
BPAL00060645220□00	22	20,30	100	0.075±20%	1.4	1.8	220
BPAL00060645330□00	33	20,30	100	0.10±20%	1.1	1.6	330
BPAL00060645470□00	47	20,30	100	0.13±20%	0.97	1.4	470
BPAL00060645680□00	68	20,30	100	0.20±20%	0.81	1.1	680
BPAL00060645101□00	100	20,30	100	0.32±20%	0.61	0.86	101

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat or I rms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω)	Isat1 (A)Typ	Isat2 (A)Max	Irms (A)Typ	Marking
BPAL000606451R5□0E	1.5	20,30	100	0.016±30%	4.0	-	4.1	1R5
BPAL00060645330□0E	33	20,30	100	0.10±20%	1.1	-	1.6	330
BPAL00060645331□0E	330	20,30	100	1.59 Max	0.47	-	0.45	331
BPAL00060645471□0E	470	20,30	100	1.68±20%	-	0.27	0.27	471
BPAL00060645222□0E	2200	20,30	100	16 Max	0.08	-	0.1	222

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat1 for Inductance drop 10% from its value without current
- Isat2 for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat1, Isat2 or I rms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω)	Isat (A)Max	Irms (A)Typ	Marking
BPAL000606451R0□09	1.0	30	100	0.011±30%	6.7	4.8	●1R0
BPAL000606451R5□09	1.5	30	100	0.013±30%	5.5	4.5	●1R5
BPAL000606452R2□09	2.2	30	100	0.015±30%	4.2	4.1	●2R2
BPAL000606453R3□09	3.3	30	100	0.019±30%	3.5	3.7	●3R3
BPAL000606454R7□09	4.7	30	100	0.023±30%	3.1	3.3	●4R7
BPAL000606456R8□09	6.8	30	100	0.027±30%	2.5	3.1	●6R8
BPAL00060645100□09	10	20,30	100	0.035±20%	2.1	2.6	●100
BPAL00060645150□09	15	20,30	100	0.060±20%	1.7	2.0	●150
BPAL00060645220□09	22	20,30	100	0.075±20%	1.4	1.8	●220
BPAL00060645330□09	33	20,30	100	0.10±20%	1.1	1.6	●330
BPAL00060645470□09	47	20,30	100	0.13±20%	0.97	1.4	●470
BPAL00060645680□09	68	20,30	100	0.20±20%	0.81	1.1	●680
BPAL00060645101□09	100	20,30	100	0.32±20%	0.61	0.86	●101

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat or I rms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω)±30%	Isat (A)Max	Irms (A)Typ	Marking
BPAL000808451R5□00	1.5	20,30	100	0.0065	9.0	8.0	1R5
BPAL000808452R2□00	2.2	30	100	0.00863	7.3	6.5	2R2
BPAL000808453R3□00	3.3	20,30	100	0.0114	6.0	6.0	3R3
BPAL000808454R7□00	4.7	20,30	100	0.0145	5.2	5.4	4R7
BPAL000808456R8□00	6.8	20,30	100	0.0192	4.0	4.38	6R8
BPAL00080845100□00	10	20,30	100	0.02894	3.5	3.5	100
BPAL00080845150□00	15	20,30	100	0.03747	2.9	3.0	150
BPAL00080845180□00	18	20,30	100	0.05143	2.7	2.8	180
BPAL00080845220□00	22	20,30	100	0.05432	2.4	2.6	220
BPAL00080845330□00	33	20,30	100	0.08248	2.1	2.0	330
BPAL00080845470□00	47	20,30	100	0.110	1.6	1.8	470
BPAL00080845680□00	68	20,30	100	0.165	1.4	1.4	680
BPAL00080845101□00	100	20,30	100	0.33	1.2	1.1	101
BPAL00080845331□00	330	20,30	100	1.13	0.7	0.55	331

Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat for Inductance drop 30% from its value without current
- I rms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat or I rms

SMD Shielded Power Inductors – BPAL Series

Standard Specifications

Part Number	Inductance (uH)	Tolerance (±%)	Test Frequency (kHz)	RDC (Ω)	Isat1 (A)Max	Isat2 (A)Max	Irms (A)Typ	Marking
BPAL000808451R5□0E	1.5	30	100	0.011±20%	7.3	-	4.9	1R5
BPAL000808451R5□0F	1.5	30	100	0.010±30%	-	6.3	8.6	1R5
BPAL000808452R2□0E	2.2	30	100	0.013±30%	-	6.2	6.3	2R2
BPAL000808453R3□0E	3.3	20,30	100	0.019±20%	6.0	-	4.5	3R3
BPAL000808454R7□0E	4.7	20,30	100	0.020±20%	4.1	-	3.6	4R7
BPAL000808454R7□0F	4.7	30	100	0.018±30%	-	4.1	4.8	4R7
BPAL000808456R8□0E	6.8	20,30	100	0.027±20%	3.3	-	3.0	6R8
BPAL00080845100□0E	10	20,30	100	0.038±20%	2.7	-	2.5	100
BPAL00080845151□0E	150	20,30	100	0.43±20%	-	0.69	0.95	151

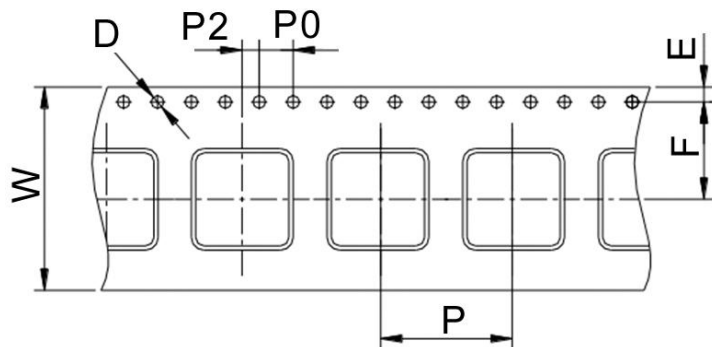
Note: When ordering, please specify tolerance code. Tolerance: M=±20% , T=±30%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Isat 1 for Inductance drop 20% from its value without current
- Isat 2 for Inductance drop 30% from its value without current
- Irms for a 40°C temperature rise from 25°C ambient with current
- Rated DC Current : The less value which is Isat1,Isat2 or Irms

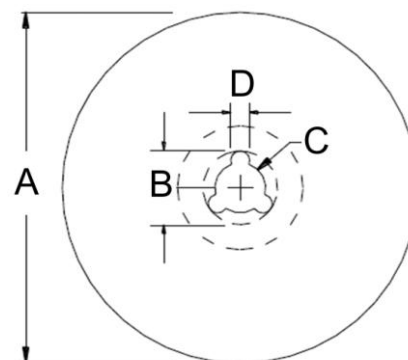
SMD Shielded Power Inductors – BPAL Series

Packaging Specifications

Tape Dimensions



Reel Dimensions



Dimensions in mm

TYPE	Tape Dimensions							Reel Dimensions				Quantity
	W	D	E	F	P	P0	P2	A	B	C	D	PCS / Reel
BPAL00060630	16	1.5	1.75	7.5	12	4	2	330	20	13	2	1500
BPAL00060645	16	1.5	1.75	7.5	12	4	2	330	20	13	2	1000
BPAL00080845	16	1.5	1.75	7.5	12	4	2	330	20	13	2	1000