IPK Series

Radial Choke Inductors

TRIGON COMPONENTS



FEATURES

- Open magnetic circuit construction.
- Low cost and high reliability.
- Drum Choke with low cost and high reliability.
- Fit for power line & signal line circuit.
- To help you go pass the CE/FCC standard.
- RoHS Compliant.

APPLICATION

- Notebook, Inkjet printer, Copying machine, Cellular phone, ADSL modem, Gaming machine, Televisions, CRT displays, Printers and other electronic products, etc.
- Mobil Device / Handheld Device / Lowprofile Device / Panel…

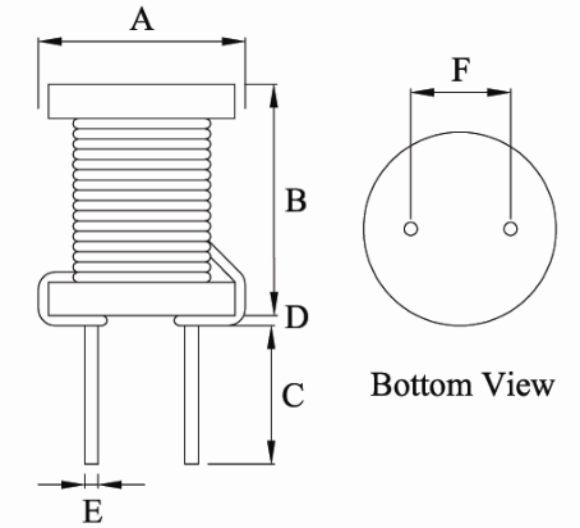
ORDERING CODE

IPK	0406	M	1R0	A	U
(1)	(2)	(3)	(4)	(5)	(6)

(1) Radial Choke Inductors
(2) Size
0406, 0608, 0810, 0912
1012, 1016
(3) Tolerance Code:
K: 10%, L: 15%, M: 20%, N: 30%
(4) Inductance: uH
(5) Package: B: Bulk, A: Tape/Ammo
(6) Wrapper
U: With UL Tubing
Blank: Without UL Tubing

※Please refer to complete Ordering Code document (IPK-Ord) for more ordering options.

Configurations:



Dimension (mm)

Item	A (max)	B (max)	C ±1.5	D (max.)	E ±0.05	F ±0.5
IPK0406	6.0	7.5	15.0	2.0	0.50	2.0
IPK0507	6.0	8.5	15.0	2.0	0.5	2.5
IPK0608	8.0	9.5	15.0	2.0	0.65	3.0
IPK0810	10.0	11.5	15.0	2.5	0.65	5.0
IPK0912	11.0	13.5	15.0	3.0	0.80	5.0
IPK1012	12.0	13.5	15.0	3.0	0.80	6.0
IPK1016	12.5	18.0	15.0	3.0	0.80	6.0

Inductance Range

Item	uH
IPK0406	1.0 ~ 1000
IPK0507	1.0 ~ 1000
IPK0608	1.0 ~ 1000
IPK0810	1.0 ~ 1000
IPK0912	1.0 ~ 1000
IPK1012	1.0 ~ 1000
IPK1016	1.0 ~ 1000

Inductor

IPK Series

Radial Choke Inductors - IPK0406

TRIGON COMPONENTS

Electrical Characteristics for IPK0406 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK0406N1R0	1.00	1	0.030	3.00
IPK0406N1R5	1.50	1	0.035	2.80
IPK0406N1R8	1.80	1	0.040	2.70
IPK0406N2R2	2.20	1	0.045	2.50
IPK0406N2R7	2.70	1	0.050	2.50
IPK0406N3R3	3.30	1	0.055	2.20
IPK0406N3R9	3.90	1	0.055	2.20
IPK0406N4R7	4.70	1	0.065	2.00
IPK0406N5R6	5.60	1	0.070	1.80
IPK0406N6R8	6.80	1	0.080	1.70
IPK0406N8R2	8.20	1	0.090	1.50
IPK0406M100	10.00	1	0.110	1.40
IPK0406M120	12.00	1	0.140	1.20
IPK0406M150	15.00	1	0.160	1.00
IPK0406M180	18.00	1	0.180	1.00
IPK0406M220	22.00	1	0.250	0.90
IPK0406M270	27.00	1	0.370	0.80
IPK0406M330	33.00	1	0.420	0.70
IPK0406M390	39.00	1	0.450	0.70
IPK0406M470	47.00	1	0.500	0.60
IPK0406M560	56.00	1	0.560	0.60
IPK0406M680	68.00	1	0.630	0.55
IPK0406M820	82.00	1	0.770	0.50
IPK0406M101	100.00	1	0.850	0.40
IPK0406M121	120.00	1	1.300	0.40
IPK0406M151	150.00	1	1.400	0.30
IPK0406M181	180.00	1	2.200	0.30
IPK0406M221	220.00	1	2.500	0.28
IPK0406M271	270.00	1	2.700	0.25
IPK0406M331	330.00	1	3.000	0.22
IPK0406M391	390.00	1	3.400	0.21
IPK0406M471	470.00	1	3.900	0.20
IPK0406M561	560.00	1	5.000	0.16
IPK0406M681	680.00	1	7.000	0.15
IPK0406M821	820.00	1	7.700	0.14
IPK0406M102	1000.00	1	8.700	0.12

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Electrical Characteristics for IPK0608 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK0507K102BU	1000	1	6.000	0.25
IPK0608N1R0	1.00	1	0.015	3.00
IPK0608N1R2	1.20	1	0.015	2.80
IPK0608N1R5	1.50	1	0.015	2.70
IPK0608N2R2	2.20	1	0.015	2.60
IPK0608N2R7	2.70	1	0.020	2.50
IPK0608N3R3	3.30	1	0.020	2.50
IPK0608N3R9	3.90	1	0.025	2.50
IPK0608N4R7	4.70	1	0.025	2.30
IPK0608N5R6	5.60	1	0.030	2.10
IPK0608N6R8	6.80	1	0.030	1.80
IPK0608N8R2	8.20	1	0.035	1.20
IPK0608M100	10.00	1	0.045	1.00
IPK0608M120	12.00	1	0.050	1.00
IPK0608M150	15.00	1	0.055	0.90
IPK0608M180	18.00	1	0.090	0.90
IPK0608M220	22.00	1	0.095	0.80
IPK0608M270	27.00	1	0.110	0.75
IPK0608M330	33.00	1	0.125	0.70
IPK0608M390	39.00	1	0.140	0.65
IPK0608M470	47.00	1	0.160	0.60
IPK0608M560	56.00	1	0.180	0.60
IPK0608M680	68.00	1	0.200	0.56
IPK0608M820	82.00	1	0.270	0.48
IPK0608M101	100.00	1	0.310	0.45
IPK0608M121	120.00	1	0.370	0.43
IPK0608M151	150.00	1	0.470	0.40
IPK0608M181	180.00	1	0.540	0.40
IPK0608M221	220.00	1	0.730	0.38
IPK0608M271	270.00	1	0.830	0.32
IPK0608M331	330.00	1	0.950	0.30
IPK0608M391	390.00	1	1.220	0.25
IPK0608M471	470.00	1	1.630	0.22
IPK0608M561	560.00	1	1.800	0.20
IPK0608M681	680.00	1	2.100	0.18
IPK0608M821	820.00	1	2.900	0.17
IPK0608M102	1000.00	1	3.200	0.15

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Electrical Characteristics for IPK0810 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK0810N1R0	1.00	1	0.015	4.50
IPK0810N1R5	1.50	1	0.020	4.50
IPK0810N2R2	2.20	1	0.020	4.20
IPK0810N2R7	2.70	1	0.020	4.20
IPK0810N3R3	3.30	1	0.020	4.00
IPK0810N3R9	3.90	1	0.020	4.00
IPK0810N4R7	4.70	1	0.025	4.00
IPK0810N5R6	5.60	1	0.025	4.00
IPK0810N6R8	6.80	1	0.025	4.00
IPK0810N8R2	8.20	1	0.035	3.80
IPK0810M100	10.00	1	0.040	3.80
IPK0810M120	12.00	1	0.040	3.20
IPK0810M150	15.00	1	0.045	2.80
IPK0810M180	18.00	1	0.060	2.50
IPK0810M220	22.00	1	0.070	2.10
IPK0810M270	27.00	1	0.085	2.00
IPK0810M330	33.00	1	0.090	1.80
IPK0810M390	39.00	1	0.100	1.60
IPK0810M470	47.00	1	0.110	1.50
IPK0810M560	56.00	1	0.150	1.30
IPK0810M680	68.00	1	0.190	1.00
IPK0810M820	82.00	1	0.210	0.90
IPK0810M101	100.00	1	0.240	0.80
IPK0810M121	120.00	1	0.260	0.80
IPK0810M151	150.00	1	0.310	0.75
IPK0810M181	180.00	1	0.380	0.70
IPK0810M221	220.00	1	0.430	0.65
IPK0810M271	270.00	1	0.490	0.63
IPK0810M331	330.00	1	0.660	0.60
IPK0810M391	390.00	1	0.790	0.58
IPK0810M471	470.00	1	0.910	0.52
IPK0810M561	560.00	1	1.130	0.50
IPK0810M681	680.00	1	1.300	0.40
IPK0810M821	820.00	1	1.530	0.30
IPK0810M102	1000.00	1	1.800	0.27

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Electrical Characteristics for IPK0912 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK0912N1R0	1.00	1	0.015	5.00
IPK0912N1R5	1.50	1	0.015	5.00
IPK0912N1R8	1.80	1	0.015	5.00
IPK0912N2R2	2.20	1	0.015	5.00
IPK0912N3R3	3.30	1	0.020	4.80
IPK0912N3R9	3.90	1	0.020	4.80
IPK0912N4R7	4.70	1	0.020	4.50
IPK0912N5R6	5.60	1	0.025	4.00
IPK0912N6R8	6.80	1	0.025	3.90
IPK0912N8R2	8.20	1	0.025	3.50
IPK0912M100	10.00	1	0.030	3.40
IPK0912M120	12.00	1	0.030	3.20
IPK0912M150	15.00	1	0.040	3.00
IPK0912M180	18.00	1	0.045	2.80
IPK0912M220	22.00	1	0.050	2.70
IPK0912M270	27.00	1	0.055	2.50
IPK0912M330	33.00	1	0.055	2.50
IPK0912M390	39.00	1	0.060	2.00
IPK0912M470	47.00	1	0.070	1.80
IPK0912M560	56.00	1	0.080	1.70
IPK0912M680	68.00	1	0.090	1.50
IPK0912M820	82.00	1	0.110	1.40
IPK0912M101	100.00	1	0.160	1.20
IPK0912M121	120.00	1	0.170	1.10
IPK0912M151	150.00	1	0.200	1.00
IPK0912M181	180.00	1	0.220	0.90
IPK0912M221	220.00	1	0.260	0.80
IPK0912M271	270.00	1	0.390	0.70
IPK0912M331	330.00	1	0.450	0.50
IPK0912M391	390.00	1	0.490	0.45
IPK0912M471	470.00	1	0.620	0.43
IPK0912M561	560.00	1	0.640	0.40
IPK0912M681	680.00	1	0.790	0.38
IPK0912M821	820.00	1	1.340	0.35
IPK0912M102	1000.00	1	1.820	0.30

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Electrical Characteristics for IPK1012 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK1012N1R0	1.00	1	0.010	6.00
IPK1012N1R5	1.50	1	0.010	6.00
IPK1012N1R8	1.80	1	0.015	6.00
IPK1012N2R7	2.70	1	0.015	5.50
IPK1012N3R3	3.30	1	0.015	5.50
IPK1012N3R9	3.90	1	0.020	5.00
IPK1012N4R7	4.70	1	0.020	5.00
IPK1012N5R6	5.60	1	0.025	4.80
IPK1012N6R8	6.80	1	0.025	4.80
IPK1012N8R2	8.20	1	0.025	4.50
IPK1012M100	10.00	1	0.025	4.50
IPK1012M120	12.00	1	0.025	4.30
IPK1012M150	15.00	1	0.035	4.30
IPK1012M180	18.00	1	0.040	4.00
IPK1012M220	22.00	1	0.045	3.70
IPK1012M270	27.00	1	0.045	3.50
IPK1012M330	33.00	1	0.055	3.00
IPK1012M390	39.00	1	0.060	2.50
IPK1012M470	47.00	1	0.080	2.30
IPK1012M560	56.00	1	0.085	2.00
IPK1012M680	68.00	1	0.095	2.00
IPK1012M820	82.00	1	0.110	1.80
IPK1012M101	100.00	1	0.140	1.70
IPK1012M121	120.00	1	0.160	1.50
IPK1012M151	150.00	1	0.180	1.40
IPK1012M181	180.00	1	0.250	1.30
IPK1012M221	220.00	1	0.280	1.00
IPK1012M271	270.00	1	0.420	0.90
IPK1012M331	330.00	1	0.540	0.80
IPK1012M391	390.00	1	0.600	0.80
IPK1012M471	470.00	1	0.660	0.70
IPK1012M561	560.00	1	0.740	0.60
IPK1012M681	680.00	1	0.840	0.50
IPK1012M821	820.00	1	1.080	0.50
IPK1012M102	1000.00	1	1.390	0.50

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Electrical Characteristics for IPK1016 Series

Part Number	Inductance (μH)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IPK1016N1R0	1.00	1	0.010	9.00
IPK1016N1R5	1.50	1	0.015	9.00
IPK1016N1R8	1.80	1	0.015	9.00
IPK1016N2R7	2.70	1	0.015	9.00
IPK1016N3R3	3.30	1	0.015	8.50
IPK1016N3R9	3.90	1	0.015	8.00
IPK1016N4R7	4.70	1	0.020	7.50
IPK1016N5R6	5.60	1	0.025	7.50
IPK1016N6R8	6.80	1	0.025	7.50
IPK1016N8R2	8.20	1	0.025	7.20
IPK1016M100	10.00	1	0.030	7.20
IPK1016M120	12.00	1	0.030	7.00
IPK1016M150	15.00	1	0.035	6.50
IPK1016M180	18.00	1	0.035	6.30
IPK1016M220	22.00	1	0.045	5.50
IPK1016M270	27.00	1	0.050	4.50
IPK1016M330	33.00	1	0.070	4.00
IPK1016M390	39.00	1	0.070	3.80
IPK1016M470	47.00	1	0.070	3.60
IPK1016M560	56.00	1	0.080	3.20
IPK1016M680	68.00	1	0.090	3.00
IPK1016M820	82.00	1	0.095	2.60
IPK1016M101	100.00	1	0.120	2.50
IPK1016M121	120.00	1	0.140	2.30
IPK1016M151	150.00	1	0.170	2.10
IPK1016M181	180.00	1	0.190	2.00
IPK1016M221	220.00	1	0.250	1.80
IPK1016M271	270.00	1	0.340	1.50
IPK1016M331	330.00	1	0.450	1.50
IPK1016M391	390.00	1	0.510	1.30
IPK1016M471	470.00	1	0.560	1.20
IPK1016M561	560.00	1	0.640	1.00
IPK1016M681	680.00	1	0.710	1.00
IPK1016M821	820.00	1	1.010	0.90
IPK1016M102	1000.00	1	1.200	0.80

※Test Freq. : 1KHz / 0.25V. ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Test Equipment:

※ HP4284A, HP42841A-L, IDC, Q.RDC
※ HP8753D NETWORK ANALYZER- SRF

Standard Atmospheric Conditions:
Ambient Temp: 20+/-15°C
Relative Humidity: 65+/-20%
If there may be any doubt on the result, measurement shall be made within the following limits:
Ambient Temp: 25+/-5°C
Relative Humidity: 75+/-10%

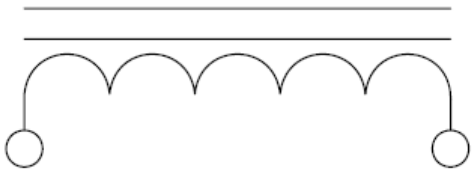
Operating & Storage Condition:

Operating Temp: -40°C ~+85°C
Storage Temp: -40°C ~+85°C
Storage Life Time: 12 Month @25°C, RH 65%

Attention & Caution:

Please avoid following matters:
※ Splashing water or salt water
※ Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
※ Vibrations or shocks which exceed the specified condition
※ Dew Condenses
※ Please be careful for the stress to this product by board flexure or something after the mounting.

Schematic:



<table>
<tr><th>NO</th><th>ITEM</th><th>TEST CONDITIONS</th><th>Sample Qty/pcs</th><th>Spec</th><th>Test Day Time</th><th>Modify Day</th><th>Result</th></tr>
<tr><td>1</td><td>Dimension</td><td>Actual Size…</td><td>10</td><td>Meet spec</td><td>90/05/12
~
90/05/12</td><td></td><td>OK</td></tr>
<tr><td>2</td><td>Thermal Shock (Temperature Cycle)</td><td>Temperature: -20°C/+85°C kept stabilized for 30 minutes each
Cycle: 100 Cycles(power off)</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/18</td><td></td><td>OK</td></tr>
<tr><td>3</td><td>Humidity Resistance</td><td>Humidity: 90%~95% RH
Temperature: 40±2°C
Test Time: 120±2 Hours</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/18</td><td></td><td>OK</td></tr>
<tr><td>4</td><td>High Temperature</td><td>Temperature: 85±2°C
Humidity: 20%
Test Time: 120±2 Hours</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/18</td><td></td><td>OK</td></tr>
<tr><td>5</td><td>Low Temperature</td><td>Temperature: -20±2°C
Time: 120±2 Hours</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/18</td><td></td><td>OK</td></tr>
<tr><td>6</td><td>Temperature and Humidity Cycle</td><td><table><tr><th>Step</th><th>Temp</th><th>Humidity</th><th>Time</th></tr><tr><td>1</td><td>25±2°C</td><td>95~100% RH</td><td>3.0Hr</td></tr><tr><td>2</td><td>55±2°C</td><td>95~96% RH</td><td>9.5Hr</td></tr><tr><td>3</td><td>25±2°C</td><td>95~100% RH</td><td>9.5Hr</td></tr></table></td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/19</td><td></td><td>OK</td></tr>
<tr><td>7</td><td>Vibration</td><td>Frequency: 10Hz~55Hz
Amplitude: 1.5mm
Direction: X,Y,Z
Time: 2 Hours each</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/12</td><td></td><td>OK</td></tr>
<tr><td>8</td><td>Soldering Heat Resistance</td><td>Preheat: 120~150°C (6sec)
Solder: H63A (eutectic solder)
Solder Temp.: 260±5°C
Flux: Rosin
Dip time: 10±1 seconds</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/12</td><td></td><td>OK</td></tr>
<tr><td>9</td><td>High-Voltage</td><td>100V DC between core & winding</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/12</td><td></td><td>OK</td></tr>
<tr><td>10</td><td>ORT: on going reliability test</td><td>Elec. loading & spec test…
Base on Spec for approval</td><td>10</td><td>Elec. No variation
Appearance
No deformation</td><td>90/05/12
~
90/05/12</td><td></td><td>OK</td></tr>
</table>

Box Package: (cm)

