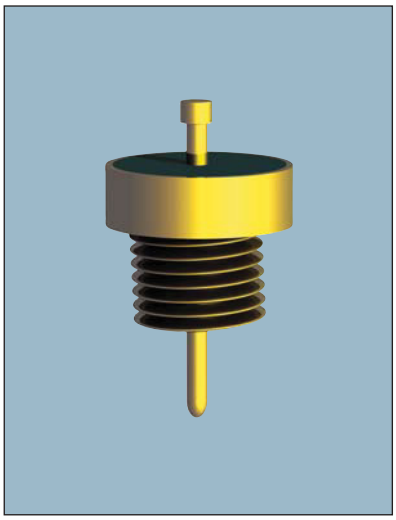
Cylindrical Style EMI Filters
BL Series – .375 Dia. – Button Epoxy Sealed – Circuits Available – C & L



APPLICATIONS

The BL series offers effective filtering from 30 KHz up through 1 GHz. It offers epoxy resin seals on both ends in order to optimize volumetric efficiency and reduce cost. Where severe moisture environments exist the slightly larger companion BK series is recommended as it incorporates a glass to metal hermetic seal at both ends. The BL series is designed for bulkhead mounting in a slotted hole with nut and lockwasher supplied. This series is ideal for low to medium impedance circuits where large amounts of capacitance to ground can be tolerated. In the "L" section version an internal ferrite bead element provides both inductance and series resistance (lossy characteristic) which improves insertion loss at lower current ratings and provides superior transient performance.

Alternate lead configurations or special capacitance values may be ordered.

Custom packages or filter arrays utilizing the BL series can be furnished.

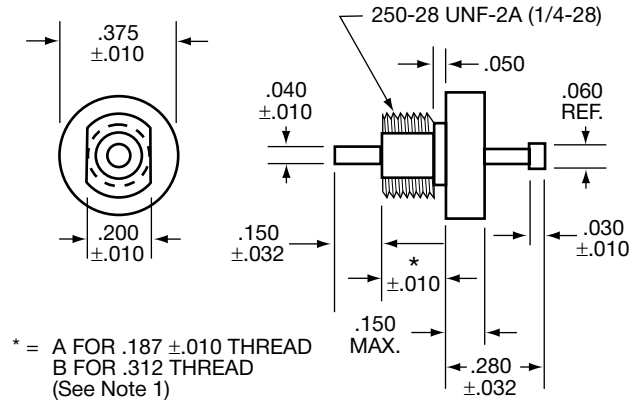
CHARACTERISTICS

- Internal ferrite bead provides inductance for the L-section version.
- High DC current rating: 15 Amps.

SPECIFICATIONS

1. Case/Terminal Plating:
   Electro-tin standard – Gold or silver available
2. Material:
   Case: Brass Standard – Steel available
   End Seal: Epoxy
   Terminals: Copper nailhead standard
3. Operating Temperature Range:
   -55°C to +125°C
4. Electrical Characteristics:
   A. Rated Voltage: See chart
   B. Insulation Resistance:
      At 25°C: 1,000 megohm-microfarad min., or 100,000 megohms min., whichever is less
      At 125°C: 100 megohm-microfarad min., or 10,000 megohms min., whichever is less
   C. Dielectric Withstanding Voltage (DWV):
      R-level designs:
      2.0 times rated DC voltage
      Class B designs:
      2.5 times rated DC voltage
   D. Capacitance: Values listed in chart are "guaranteed minimum value" (GMV)
5. Marking:
   Standard Marking: KYOCERA AVX, KYOCERA AVX part number, lot code
   BL2 only: Letter "L" denotes ferrite bead inductor at threaded end
   See Reliability Codes section for definition of Reliability Level marking. See How to Order section for part number construction.
6. Installation:
   A. Mounting Torque:
      44 oz-in. ± 4 oz-in.
   B. Refer to "Installation, Handling, Hardware Options" section of the catalog.

STANDARD CONFIGURATION



CIRCUIT DIAGRAMS

BL1 BL2 (See Note 1)

millimeters (inches)

.25 (.010)	2.54 (.100)
.76 (.030)	3.81 (.150)
.81 (.032)	4.57 (.180)
1.02 (.040)	5.08 (.200)
1.52 (.060)	9.53 (.375)

(See Note 2)

Notes:
1. All BL2 L-Section Filters have inductor (bead) at threaded end.
2. Metric equivalent dimensions given for information only.

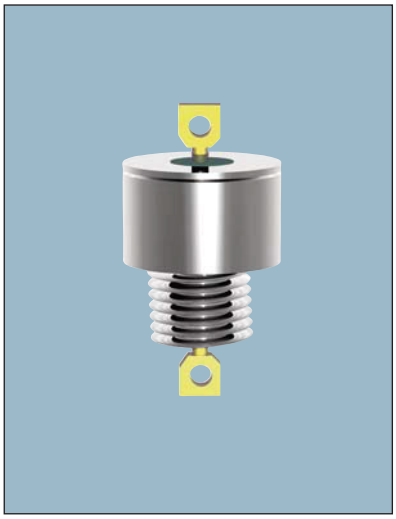
SPECIFICATIONS

				Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	CKT	CAP (µF)	DC Voltage	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
BL1CA-754	C	0.750	50	11	24	30	40	40	64	70
BL1CA-105	C	1.000	50	12	24	30	40	40	65	70
BL1CA-125	C	1.200	50	15	28	33	40	40	70	70
BL1CA-145	C	1.400	50	15	28	33	40	40	70	70
BL2CA-754	L2	0.750	50	11	24	30	40	40	64	70
BL2CA-105	L2	1.000	50	12	24	30	40	40	65	70
BL2CA-125	L2	1.200	50	15	28	33	40	40	70	70
BL2CA-145	L2	1.400	50	15	28	33	40	40	70	70
BL1AA-504	C	0.500	100	6	19	25	36	40	60	70
BL1AA-754	C	0.750	100	11	24	30	40	40	64	70
BL1AA-105	C	1.000	100	12	24	30	40	40	65	70
BL1AA-125	C	1.200	100	15	28	33	40	40	70	70
BL2AA-504	L2	0.500	100	6	19	25	36	40	60	70
BL2AA-754	L2	0.750	100	11	24	30	40	40	64	70
BL2AA-105	L2	1.000	100	12	24	30	40	40	65	70
BL2AA-125	L2	1.200	100	15	28	33	40	40	70	70
BL1BA-103	C	0.010	200	–	–	–	2	20	40	55
BL1LA-753	C	0.075	200*	–	–	7	18	37	46	70
BL1LA-154	C	0.150	200*	–	10	16	26	40	52	70
BL2BA-103	L2	0.010	200	–	–	–	2	20	40	55
BL2LA-753	L2	0.075	200*	–	–	7	18	37	51	70
BL2LA-154	L2	0.150	200*	–	10	16	26	40	52	70

* Also rated 125 VAC/400 Hz

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

Cylindrical Style EMI Filters
BK Series – .375/.410 Dia. – Button Hermetically Sealed
Circuits Available – C & L



APPLICATIONS

The BK series offers effective filtering from 500 KHz to 10 GHz. Glass sealed for hermeticity, this low profile series is impervious to high moisture, solvents, or other severe environmental conditions commonly encountered in military applications. It is designed for bulkhead mounting in a slotted hole with nut and lockwasher supplied. This series is ideal for low to medium impedance circuits where large amounts of capacitance to ground can be tolerated. In the "L" section version an internal ferrite bead element provides both inductance and series resistance (lossy characteristic) which improves insertion loss and provides superior transient performance.

Alternate lead configurations or special capacitance values may be ordered.

Custom packages or filter arrays utilizing the BK series can be furnished.

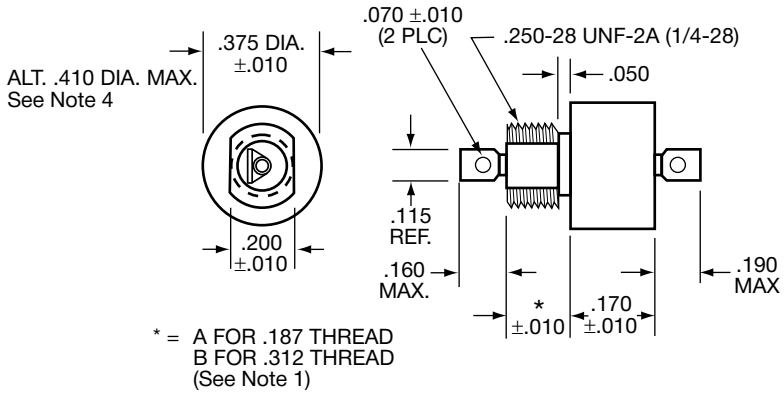
CHARACTERISTICS

- .410 Dia. version (AK) meets or exceeds the applicable requirements of MIL-F-28861/1. See QPL listings.
- Glass hermetic seal on both ends.
- Internal ferrite bead provides inductance for the L-section version.
- High DC current rating: 15 Amps

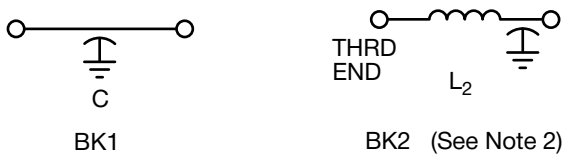
SPECIFICATIONS

1. Case/Terminal Plating:
   Electro-tin standard – Silver or gold available
2. Material:
   Case: Brass Standard – Steel available
   End Seal: Mild steel
   Terminals: Nickel-iron alloy
3. Operating Temperature Range:
   -55°C to +125°C
4. Electrical Characteristics:
   A. Rated Voltage: See chart
   B. Insulation Resistance:
   At 25°C: 1,000 megohm-microfarad min., or 100,000 megohms min., whichever is less
   At 125°C: 100 megohm-microfarad min., or 10,000 megohms min., whichever is less
   C. Dielectric Withstanding Voltage (DWV):
   R-level designs:
   2.0 times rated DC voltage
   Class B, Class S designs:
   2.5 times rated DC voltage
   D. Capacitance: Values listed in chart are "guaranteed minimum value" (GMV)
5. Marking:
   Standard Marking: KYOCERA AVX, KYOCERA AVX part number,
   lot code
   BK2 only: Letter "L" denotes ferrite bead inductor at threaded end
   See Reliability Codes section for definition of Reliability Level marking. See How to Order section for part number construction.
6. Installation:
   A. Mounting Torque:
   44 oz-in. ± 4 oz-in.
   B. Refer to "Installation, Handling, Hardware Options" section of the catalog.

STANDARD CONFIGURATION



CIRCUIT DIAGRAMS



millimeters (inches)

.25 (.010)	4.75 (.187)
1.27 (.050)	4.83 (.190)
1.78 (.070)	5.08 (.200)
2.92 (.115)	7.93 (.312)
3.81 (.150)	9.53 (.375)
4.32 (.170)	– –

(See Note 3)
(See Note 1)

Notes:

1. Thread length option. Standard part numbers shown (e.g., BK1CA-103) are .187" thread length. Optional .312 length available. (e.g., BK1CB-103).
2. Ferrite bead inductor at threaded end (BK2 only).
3. Metric equivalent dimensions given for information only.
4. .410 Dia. (identified as AK) is required for all hi-rel tested parts (e.g., MIL-F-28861/1 series).

Cylindrical Style EMI Filters
BK Series – .375/.410 Dia. – Button Hermetically Sealed
Circuits Available – C & L

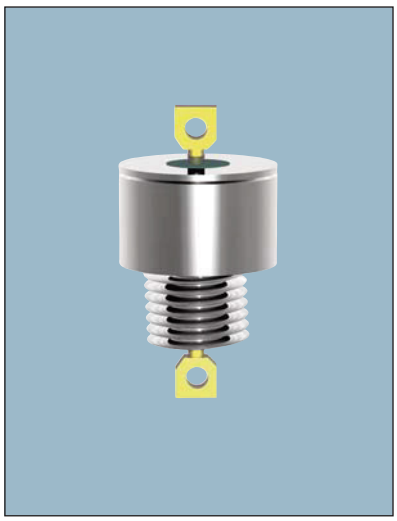
SPECIFICATIONS

				Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	CKT	CAP (µF)	DC Voltage	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
BK1CA-125	C	1.200	50	15	28	33	40	40	70	70
BK1CB-125	C	1.200	50	15	28	33	40	40	70	70
BK2CA-125	L2	1.200	50	15	28	33	40	40	70	70
BK2CB-125	L2	1.200	50	15	28	33	40	40	70	70
BK1NA-704	C	0.700	70	10	24	30	40	40	64	70
BK1NB-704	C	0.700	70	10	24	30	40	40	64	70
BK2NA-704	L2	0.700	70	10	24	30	40	40	64	70
BK2NB-704	L2	0.700	70	10	24	30	40	40	64	70
BK1AA-103	C	0.010	100	–	–	–	2	20	40	55
BK1AA-454	C	0.450	100	6	19	25	36	40	60	70
BK1AB-454	C	0.450	100	6	19	25	36	40	60	70
BK1AA-754	C	0.750	100	11	24	30	40	40	64	70
BK1AA-105	C	1.000	100	12	24	30	40	40	65	70
BK2AA-454	L2	0.450	100	6	19	25	36	40	60	70
BK2AB-454	L2	0.450	100	6	19	25	36	40	60	70
BK2AA-754	L2	0.750	100	11	24	30	40	40	64	70
BK2AA-105	L2	1.000	100	12	24	30	40	40	65	70
BK1HA-254	C	0.250	150	–	14	20	31	40	56	70
BK1HB-254	C	0.250	150	–	14	20	31	40	56	70
BK2HA-254	L2	0.250	150	–	14	20	31	40	56	70
BK2HB-254	L2	0.250	150	–	14	20	31	40	56	70
BK1LA-753	C	0.075	200*	–	–	7	18	37	46	70
BK1LA-154	C	0.150	200*	–	10	16	26	40	52	70
BK1LB-154	C	0.150	200*	–	10	16	26	40	52	70
BK2BA-203	L2	0.020	200*	–	–	–	7	25	40	60
BK2LA-753	L2	0.075	200*	–	–	7	18	37	51	70
BK2LA-154	L2	0.150	200*	–	10	16	26	40	52	70
BK2LB-154	L2	0.150	200*	–	10	16	26	40	52	70

* Also rated 125 VAC/400 Hz

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

Cylindrical Style EMI Filters
CK Series – .375 Dia. – Button Hermetically Sealed – Circuits Available – C & L



APPLICATIONS

The CK series offers effective filtering from 100 KHz to 10 GHz. Glass sealed for hermeticity, this medium profile series is impervious to high moisture, solvents, or other severe environmental conditions commonly encountered in military applications. It is designed for bulkhead mounting in a slotted hole with nut and lockwasher supplied. This series is ideal for low to medium impedance circuits where large amounts of capacitance to ground can be tolerated. In the "L" section version an internal ferrite bead element provides both inductance and series resistance (lossy characteristic) which improves insertion loss and provides superior transient performance.

Alternate lead configurations or special capacitance values may be ordered.

Custom packages or filter arrays utilizing the CK series can be furnished.

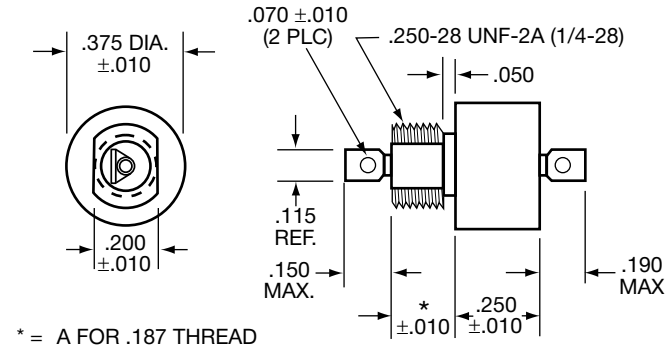
CHARACTERISTICS

- Meets or exceeds the applicable requirements of MIL-F-15733, and the environmental/test requirements of MILF-28861.
- Glass hermetic seal on both ends.
- Internal ferrite bead provides inductance for the L-section version.
- High DC current rating: 15 Amps.
- High capacitance values available.
- Conservatively rated for 125 VAC/400 Hz in certain values.

SPECIFICATIONS

1. Case/Terminal Plating:
   Electro-tin standard –
   Silver or gold available
2. Material:
   Case: Brass standard – Steel available
   End Seal: Mild steel
   Terminals: Nickel-iron alloy
3. Operating Temperature Range:
   -55°C to +125°C
4. Electrical Characteristics:
   A. Rated Voltage: See chart
   B. Insulation Resistance:
   At 25°C: 1,000 megohm-microfarad min., or 100,000 megohms min., whichever is less
   At 125°C: 100 megohm-microfarad min., or 10,000 megohms min., whichever is less
   C. Dielectric Withstanding Voltage (DWV):
   R-level designs:
   2.0 times rated DC voltage
   Class B, Class S designs:
   2.5 times rated DC voltage
   D. Capacitance: Values listed in chart are "guaranteed minimum value" (GMV)
5. Marking:
   Standard Marking: KYOCERA AVX, KYOCERA AVX part number, rated current, voltage, lot code
   B. CK2 only: Letter "L" to denote ferrite bead inductor at threaded end
   C. See Reliability Codes section for definition of Reliability Level marking. See How to Order section for part number construction.
6. Installation:
   A. Mounting Torque: 44 oz-in. ± 4 oz-in.
   B. Refer to "Installation, Handling, Hardware Options" section of the catalog.

STANDARD CONFIGURATION



* = A FOR .187 THREAD
B FOR .312 THREAD
(See Note 1)

CIRCUIT DIAGRAMS

CK1 CK2 (See Note 2)

millimeters (inches)

0.25 (.010)	4.83 (.190)
1.27 (.050)	5.08 (.200)
1.78 (.070)	6.35 (.250)
2.92 (.115)	7.93 (.312)
3.81 (.150)	9.53 (.375)
4.75 (.187)	– –

(See Note 3)

Notes:

1. Thread length option.
   EXAMPLE: CK1CA-103 (.187 thrd. L)
   CK1CB-103 (.312 thrd. L).
2. All CK2 L-Section Filters have inductor (bead) at threaded end.
3. Metric equivalent dimensions given for information only.

SPECIFICATIONS

					Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	Current (A)	CKT	CAP (µF)	DC Voltage	30 KHz	150 KHz	500 KHz	1 MHz	10 MHz	100 MHz	1 GHz
CK1CA-754	15	C	0.750	50	11	24	30	40	40	64	70
CK1CA-105	15	C	1.000	50	12	24	30	40	40	65	70
CK1CA-145	15	C	1.400	50	15	28	33	40	40	70	70
CK1CA-205	15	C	2.000	50	16	30	35	43	45	70	70
CK2CA-754	15	L2	0.750	50	11	24	30	40	40	64	70
CK2CA-105	15	L2	1.000	50	12	24	30	40	40	65	70
CK2CA-145	15	L2	1.400	50	15	28	33	40	40	70	70
CK2CA-205	15	L2	2.000	50	16	30	35	43	45	70	70
CK1AA-504	15	C	0.500	100	–	16	26	34	42	58	70
CK1AA-754	15	C	0.750	100	11	24	30	40	40	64	70
CK1AA-105	15	C	1.000	100	12	24	30	40	40	65	70
CK1AA-185	15	C	1.800	100	15	28	33	41	45	70	70
CK2AA-504	15	L2	0.500	100	–	16	26	36	44	60	70
CK2AA-754	15	L2	0.750	100	11	24	30	40	40	64	70
CK2AA-105	15	L2	1.000	100	12	24	30	40	40	65	70
CK2AA-185	15	L2	1.800	100	15	28	33	41	45	70	70
CK1BA-103	15	C	0.010	200	–	–	–	2	20	40	55
CK1LA-753	15	C	0.075	200*	–	–	7	18	37	46	70
CK1BA-104	15	C	0.100	200	–	–	14	24	38	50	70
CK1LA-154	15	C	0.150	200*	–	10	16	26	40	52	70
CK1BA-304	15	C	0.300	200	–	15	23	32	40	56	70
CK1BA-504	15	C	0.500	200	6	19	25	36	40	58	70
CK2BA-103	15	L2	0.010	200	–	–	–	2	20	40	55
CK2LA-753	15	L2	0.075	200*	–	–	7	18	37	51	70
CK2BA-104	15	L2	0.100	200	–	–	14	24	38	50	70
CK2LA-154	15	L2	0.150	200*	–	10	16	26	40	52	70
CK2BA-304	15	L2	0.300	200	–	15	23	32	40	56	70
CK2BA-504	15	L2	0.500	200	6	19	25	36	40	60	70

* Also rated 125 VAC/400 Hz

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

Cylindrical Style EMI Filters
GK Series – .375/.410 Dia. Hermetically Sealed – Circuits Available – L, π, T

APPLICATIONS

The GK series offers effective filtering from 30 KHz to 10 GHz. Glass sealed for hermeticity, this series is impervious to high moisture, solvents, or other severe environmental conditions commonly encountered in military applications. It is designed for bulkhead mounting in a slotted hole with nut and lockwasher supplied.

The "L" and "T" configurations are designed to provide effective attenuation over a wide range of circuit impedances. For current ratings under 10 Amps toroidal wound inductor elements offer increased filter performance and protection against circuit transients. Data showing the actual inductance versus various levels of DC or AC bias current are available as well as the attenuation in any combination of source and load impedances.

Alternate lead configurations or special capacitance/inductance values may be ordered.

Custom packages or filter arrays utilizing the GK series can be furnished.

CHARACTERISTICS

- .410 Dia. version (HK) meets or exceeds the applicable requirements of MIL-F-28861/2,/3,/4,/5. See QPL listing.
- Glass hermetic seal on both ends.
- Wound toroidal inductor used in current ratings up through 5 Amps. Ferrite bead inductor used in 10 and 15 Amp designs.
- High DC current rating: 15 Amps.
- High capacitance values available.

SPECIFICATIONS

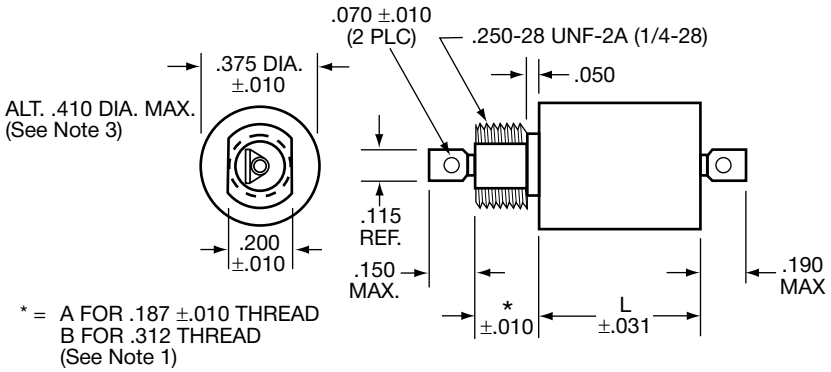
1. Case/Terminal Plating:
   Electro-tin standard –
   Silver or gold available
2. Material:
   Case: Brass standard – Steel available
   End Seal: Mild steel
   Terminals: Nickel-iron alloy
3. Operating Temperature Range:
   -55°C to +125°C
4. Electrical Characteristics:
   A. Rated Voltage and Current: See chart
   B. Insulation Resistance:
      At 25°C: 1,000 megohm-microfarad min., or 50,000 megohms min., whichever is less, at the rated DC voltage
      At 125°C: 100 megohm-microfarad min., or 10,000 megohms min., whichever is less
   C. Dielectric Withstanding Voltage (DWV):
      R-level designs:
      2.0 times rated DC voltage
      Class B, Class S designs:
      2.5 times rated DC voltage
   D. Capacitance: Total capacitance listed in chart for each filter type is "guaranteed minimum value" (GMV)
5. Marking:
   Standard Marking: KYOCERA AVX, KYOCERA AVX part number, rated current, voltage, lot code, schematic

NOTE: Schematic to indicate location of inductor (standard or reverse) for GK2 L-Section Filters.

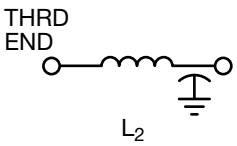
See Reliability Codes section for definition of Reliability Level marking. See How to Order section for part number construction.

6. Installation:
   A. Mounting Torque: 44 oz-in. ± 4 oz-in.
   B. Refer to "Installation, Handling, Hardware Options" section of the catalog.

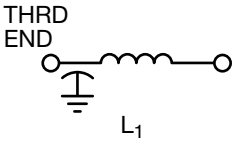
STANDARD CONFIGURATION



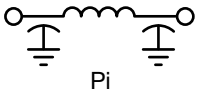
CIRCUIT DIAGRAMS



GK2 - Standard



GK2 - Reverse



GK3

GK4

millimeters (inches)

0.25 (.010)	4.75 (.187)
0.79 (.031)	4.83 (.190)
1.27 (.050)	5.08 (.200)
1.78 (.070)	7.93 (.312)
2.92 (.115)	9.53 (.375)
3.81 (.150)	13.72 (.540)

(See Note 2)

Notes:

1. Thread length option. Standard part numbers shown (e.g., GK2BA-S02) are .187" thread length. Optional .312 length available (e.g., GK2BB-S02).
2. Metric equivalent dimensions given for information only.
3. All QPL MIL-F-28861, and Hi-rel, will be supplied with .410 diameter (HK). See applicable slash sheet for mechanical dimensions.

* = A for .187 ±.010 Thread
B for .312 Thread
(See Note 1)

SPECIFICATIONS

					Insertion Loss[1] Per MIL-STD-220, +25°C							
P/N	Current (A)	CKT	L. dim	DCR (Ω)	10 KHz	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
50 VDC, 1.4 µF												
GK2CA-S01	0.06	L2	0.540	12.00	16	44	70	70	70	70	70	70
GK2CA-S02	0.10	L2	0.540	10.00	15	34	62	70	70	70	70	70
GK2CA-S03	0.15	L2	0.540	4.000	7	24	52	64	70	70	70	70
GK2CA-S04	0.25	L2	0.540	4.000	6	25	53	65	70	70	70	70
GK2CA-S05	0.30	L2	0.540	0.500	5	16	35	45	66	70	70	70
GK2CA-S06	0.45	L2	0.540	0.300	5	15	33	44	65	70	70	70
GK2CA-S07	0.50	L2	0.540	1.000	5	16	41	54	70	70	70	70
GK2CA-S08	1.00	L2	0.540	0.250	5	15	31	42	63	70	70	70
GK2CA-S09	2.00	L2	0.540	0.063	5	15	28	35	51	70	70	70
GK2CA-S10	3.00	L2	0.540	0.027	5	15	28	34	45	70	70	70
GK2CA-S12	10.0	L2	0.540	0.008	5	15	28	34	44	52	65	65
GK3CA-P02	0.10	π	0.540	10.00	12	44	70	70	70	70	70	70
GK3CA-P04	0.25	π	0.540	4.000	8	36	70	70	70	70	70	70
GK3CA-P07	0.50	π	0.540	1.000	7	24	66	70	70	70	70	70
GK3CA-P08	1.00	π	0.540	0.250	5	15	54	70	70	70	70	70
GK3CA-P09	2.00	π	0.540	0.063	5	15	40	60	70	70	70	70
GK3CA-P10	3.00	π	0.540	0.027	5	15	30	50	70	70	70	70
GK3CA-P12	10.0	π	0.540	0.008	5	15	28	34	40	52	70	70
GK4CA-T08	1.00	T	1.020	0.500	5	16	34	56	70	70	70	70
GK4CA-T09	2.00	T	1.020	0.090	5	15	26	37	61	70	70	70
GK4CA-T16	4.00	T	1.020	0.030	5	15	26	34	47	70	70	70
GK4CA-T12	10.0	T	1.020	0.008	5	17	27	34	44	60	70	70

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

SPECIFICATIONS

						Insertion Loss[1] Per MIL-STD-220, +25°C									
P/N	Current (A)	CKT	L. dim	CAP (µF)	DCR (Ω)	15 KHz	30 KHz	50 KHz	100 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
70 VDC, .7–1.4 µF															
GK2NA-S02	0.10	L2	0.540	0.700	1.700	9	20	29	41	48	60	70	70	70	70
GK2NA-S05	0.30	L2	0.540	0.700	0.770	6	15	23	35	42	54	70	70	70	70
GK2NA-S07	0.50	L2	0.540	0.700	0.360	5	12	19	29	36	48	69	70	70	70
GK2NA-S08	1.00	L2	0.540	0.700	0.140	5	11	15	21	26	36	55	70	70	70
GK2NA-S10	3.00	L2	0.540	0.700	0.050	5	10	14	20	24	31	45	70	70	70
GK2NA-S11	5.00	L2	0.540	0.700	0.015	–	–	–	14	17	24	36	60	70	70
GK2NA-S12	10.0	L2	0.540	0.700	0.008	–	10	14	20	24	30	40	40	64	70
GK3NA-P02	0.10	π	0.540	1.400	1.700	15	36	50	69	79	80	80	80	80	80
GK3NA-P05	0.30	π	0.540	1.400	0.770	–	29	44	62	73	80	80	80	80	80
GK3NA-P07	0.50	π	0.540	1.400	0.360	–	21	37	56	67	80	80	80	80	80
GK3NA-P08	1.00	π	0.540	1.400	0.140	–	–	20	46	57	75	80	80	80	80
GK3NA-P10	3.00	π	0.540	1.400	0.050	–	–	–	17	36	51	80	80	80	80
GK3NA-P11	5.00	π	0.540	1.400	0.015	–	–	–	–	16	38	75	80	80	80
GK3NA-P12	10.0	π	0.540	1.400	0.008	5	15	20	24	28	34	40	52	80	80
GK4NA-T08	1.00	T	1.020	0.750	–	–	10	15	21	26	49	70	70	70	70
GK4NA-T09	2.00	T	1.020	0.750	–	–	10	13	17	20	32	55	70	70	70
GK4NA-T16	4.00	T	1.020	0.750	–	–	9	12	15	19	29	42	70	70	70
GK4NA-T12	10.0	T	1.020	0.750	–	–	9	12	15	19	28	38	55	70	70

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

SPECIFICATIONS

						Insertion Loss[1] Per MIL-STD-220, +25°C							
P/N	Current (A)	CKT	L. dim	CAP (µF)	DCR (Ω)	10 KHz	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
100 VDC, .45–1.4 µF													
GK2AA-S01	0.06	L2	0.540	1.40	12.00	15	44	70	70	70	70	70	70
GK2AA-S02	0.10	L2	0.540	1.40	10.00	12	34	62	70	70	70	70	70
GK2AA-S03	0.15	L2	0.540	1.40	4.000	7	24	52	64	70	70	70	70
GK2AA-S05	0.30	L2	0.540	1.40	0.500	–	14	35	45	66	70	70	70
GK2AA-S06	0.45	L2	0.540	1.40	0.300	–	14	33	44	65	70	70	70
GK2AA-S07	0.50	L2	0.540	1.40	1.000	–	16	41	54	70	70	70	70
GK2AA-S09	2.00	L2	0.540	1.40	0.063	–	15	28	35	51	70	70	70
GK2AA-S12	10	L2	0.540	1.40	0.008	–	14	28	33	44	52	70	70
GK3AA-P02	0.10	π	0.540	1.00	10.00	12	40	70	70	70	70	70	70
GK3AA-P07	0.50	π	0.540	1.00	1.000	–	18	60	70	70	70	70	70
GK3AA-P09	2.00	π	0.540	1.00	0.063	–	9	36	53	70	70	70	70
GK3AA-P12	10.0	π	1.020	1.00	0.008	–	9	24	29	40	70	70	70
GK4AA-T08	1.00	T	1.020	0.75	0.500	–	10	25	49	70	70	70	70
GK4AA-T09	2.00	T	1.020	0.75	0.090	–	10	20	32	56	70	70	70
GK4AA-T16	4.00	T	1.020	0.75	0.030	–	10	19	29	42	70	70	70
GK4AA-T12	10.0	T	1.020	0.75	0.008	–	9	19	28	39	58	65	65
GK2AA-S04	0.25	L2	0.540	0.45	1.500	–	–	38	50	60	60	60	60
GK3AA-P04	0.25	π	0.540	0.90	1.500	–	–	64	80	80	80	80	80
GK2AA-S08	1.00	L2	0.540	0.45	0.250	–	–	23	34	55	60	60	60
GK3AA-P08	1.00	π	0.540	0.90	0.250	–	–	52	70	80	80	80	80
GK2AA-S10	3.00	L2	0.540	0.45	0.050	–	–	18	27	45	60	60	60
GK3AA-P10	3.00	π	0.540	0.90	0.050	–	–	25	51	80	80	80	80
GK2AA-S11	5.00	L2	0.540	0.45	0.015	–	–	17	24	36	60	60	60
GK3AA-P11	5.00	π	0.540	0.90	0.015	–	–	–	38	75	80	80	80

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

SPECIFICATIONS

						Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	Current (A)	CKT	L. dim	CAP (µF)	DCR (Ω)	100 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
150 VDC, .25–.50 µF												
GK2HA-S02	0.10	L2	0.540	0.250	1.700	32	39	51	60	60	60	70
GK2HA-S05	0.30	L2	0.540	0.250	0.770	25	30	44	60	60	60	70
GK2HA-S07	0.50	L2	0.540	0.250	36.00	20	26	39	59	60	60	70
GK2HA-S08	1.00	L2	0.540	0.250	14.00	12	16	26	48	60	60	70
GK2HA-S10	3.00	L2	0.540	0.250	0.050	11	15	20	36	60	60	70
GK2HA-S11	5.00	L2	0.540	0.250	0.015	8	12	20	32	60	60	70
GK2HA-S12	10.0	L2	0.540	0.250	0.008	6	12	20	32	40	56	70
GK3HA-P02	0.10	π	0.540	0.500	1.700	49	60	70	80	80	80	80
GK3HA-P05	0.30	π	0.540	0.500	0.770	43	53	70	80	80	80	80
GK3HA-P07	0.50	π	0.540	0.500	0.360	37	48	66	80	80	80	80
GK3HA-P08	1.00	π	0.540	0.500	0.140	28	40	58	80	80	80	80
GK3HA-P10	3.00	π	0.540	0.500	0.050	–	–	38	70	80	80	80
GK3HA-P11	5.00	π	0.540	0.500	0.015	–	–	20	63	80	80	80
GK3HA-P12	10.0	π	0.540	0.500	0.008	–	–	15	35	60	80	80
GK4HA-T08	1.00	T	1.020	0.250	0.500	15	23	42	70	80	80	80
GK4HA-T09	2.00	T	1.020	0.250	0.090	9	13	32	50	70	80	80
GK4HA-T16	4.00	T	1.020	0.250	0.030	6	10	21	40	60	80	80
GK4HA-T12	10.0	T	1.020	0.250	0.006	–	9	21	28	44	60	80
200 VDC, .15–.36 µF												
P/N	Current (A)	CKT	L. dim	CAP (µF)	DCR (Ω)	10 KHz	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
GK2BA-S02	0.10	L2	0.540	0.150	10.00	–	21	50	61	70	70	70	70
GK2BA-S04	0.25	L2	0.540	0.150	0.400	–	11	39	51	70	70	70	70
GK2BA-S07	0.50	L2	0.540	0.150	1.000	–	3	29	41	63	70	70	70
GK2BA-S08	1.00	L2	0.540	0.150	0.250	–	–	18	28	49	70	70	70
GK2BA-S09	2.00	L2	0.540	0.150	0.063	–	–	15	21	38	70	70	70
GK2BA-S10	3.00	L2	0.540	0.150	0.027	–	–	15	21	31	70	70	70
GK2BA-S12	10.0	L2	0.540	0.150	0.008	–	–	15	21	31	51	60	60
GK3BA-P02	0.10	π	0.540	0.360	10.00	–	21	61	70	70	70	70	70
GK3BA-P04	0.25	π	0.540	0.360	4.000	–	10	52	68	70	70	70	70
GK3BA-P07	0.50	π	0.540	0.360	1.000	–	–	44	63	70	70	70	70
GK3BA-P08	1.00	π	0.540	0.360	0.250	–	–	30	46	70	70	70	70
GK3BA-P09	2.00	π	0.540	0.360	0.063	–	–	16	33	63	70	70	70
GK3BA-P10	3.00	π	0.540	0.360	0.027	–	–	–	21	55	70	70	70
GK3BA-P12	10.0	π	0.540	0.360	0.008	–	–	–	20	30	60	70	70
GK4BA-T08	1.00	T	1.020	0.150	0.500	–	3	17	42	70	70	70	70
GK4BA-T09	2.00	T	1.020	0.150	0.090	–	–	12	24	48	70	70	70
GK4BA-T16	4.00	T	1.020	0.150	0.030	–	–	12	21	34	70	70	70
GK4BA-T12	10.0	T	1.020	0.150	0.008	–	3	12	21	31	50	60	60

[1] Insertion loss limits are based on theoretical values.
Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

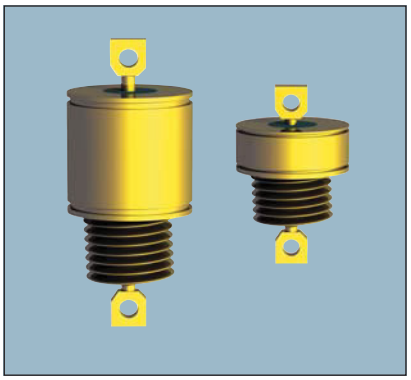
SPECIFICATIONS

						Insertion Loss[1] Per MIL-STD-220, +25°C							
P/N	Current (A)	CKT	L. dim	CAP (µF)	DCR (Ω)	10 KHz	30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
200 VDC (125 VAC/400 Hz) .15–.30 µF													
GK2LA-S02	0.10	L2	0.540	0.150	10.00	–	14	42	54	70	70	70	70
GK2LA-S07	0.50	L2	0.540	0.150	1.000	–	–	23	35	56	70	70	70
GK2LA-S09	2.00	L2	0.540	0.150	0.063	–	–	8	14	30	70	70	70
GK2LA-S12	10.0	L2	0.540	0.150	0.008	–	–	8	14	25	45	60	60
GK3LA-P02	0.10	π	0.540	0.300	10.00	–	21	60	70	70	70	70	70
GK3LA-P07	0.50	π	0.540	0.300	1.000	–	–	40	56	70	70	70	70
GK3LA-P10	3.00	π	0.540	0.300	0.027	–	–	–	25	54	70	70	70
GK3LA-P12	10.0	π	0.540	0.300	0.008	–	–	–	20	30	70	70	70
GK2LA-S04	0.25	L2	0.540	0.150	1.500	–	6	28	40	60	60	60	70
GK2LA-S08	1.00	L2	0.540	0.150	0.250	–	–	13	24	45	60	60	70
GK2LA-S10	3.00	L1	0.540	0.150	0.050	–	–	8	16	30	60	60	70
GK2LA-S11	5.00	L2	0.540	0.150	0.015	–	–	8	14	26	55	55	70
GK3LA-P04	0.25	π	0.540	0.300	1.500	–	8	44	62	80	80	80	80
GK3LA-P08	1.00	π	0.540	0.300	0.250	–	–	32	50	80	80	80	80
GK3LA-P10	3.00	π	0.540	0.300	0.050	–	–	–	19	59	80	80	80
GK3LA-P11	5.00	π	0.540	0.300	0.015	–	–	–	–	51	80	80	80
GK4LA-T08	1.00	T	1.020	0.150	0.500	–	–	10	36	66	70	70	70
GK4LA-T09	2.00	T	1.020	0.150	0.090	–	–	7	18	41	70	70	70
GK4LA-T16	4.00	T	1.020	0.150	0.030	–	–	8	15	27	70	70	70
GK4LA-T12	10.0	T	1.020	0.150	0.008	–	–	8	15	25	70	70	70

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

Cylindrical Style EMI Filters
JD Series – .690 Dia.
Hermetically Sealed – Circuits Available – C, L, π, T



CHARACTERISTICS

- Designed to meet the requirements of DESC drawings 84083, 84084 and MIL-F-28861/16 and /17.
- Glass hermetic seal on both ends.
- Wound toroidal inductor used in designs up to 10 Amps. 15
- Amp designs incorporate ferrite bead inductor.
- Superior heat dissipation for both 125 VAC and 230 VAC designs.

APPLICATIONS

The JD series offers effective filtering from 14 KHz to 10 GHz. The large diameter, increased length, restricted capacitance values and conservative dielectrics of the JD series are particularly important design features for 400 Hz AC applications where high reactive currents and the resultant heat dissipation must be controlled. Glass sealed on both ends for hermeticity, this series is impervious to high moisture, solvents, or other severe environmental conditions commonly encountered in military applications. It is designed for bulkhead mounting in a slotted hole with nut and lockwasher supplied.

The 230 VAC "T" section style is uniquely capable of handling very high pulse inrush currents or overvoltage conditions typical of EMP.

In addition, transient voltage suppression devices can be added to any of the JD circuit designs to provide complete circuit protection against EMP, lightning, or voltage spikes such as MIL-STD-704. These devices when combined with high frequency attenuation characteristics of the discoidal capacitor and toroidal inductors offer significant performance advantages by suppressing and absorbing the EMP pulse over a very broad spectral range. Very high pulse currents will occur within the EMI filter, however, reradiation to sensitive electronic circuits is prevented by the fully shielded case design. In some cases a slight increase in the case length of the filter is required to provide space for the transient suppression device.

The "L", and the "T" designs are designed to provide effective attenuation over a wide range of circuit impedances. For current ratings under 15 Amps toroidal wound inductor elements offer increased filter performance and protection against circuit transients. Data showing the actual inductance versus various levels of DC or AC bias current are available as well as the attenuation in any combination of source and load impedance.

Alternate lead configurations or special capacitance/inductance values may be ordered.

Custom packages or filter arrays utilizing the JD series can be furnished.

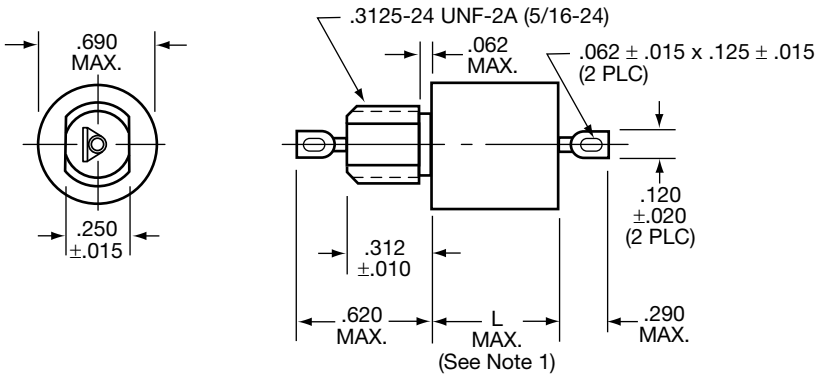
SPECIFICATIONS

1. Case/Terminal Plating:
   Electro-tin standard –
   Silver or gold available
2. Material:
   Case: Brass standard – Steel available
   End Seal: Mild steel
   Terminals: Nickel-iron alloy
3. Operating Temperature Range:
   -55°C to +125°C
4. Electrical Characteristics:
   A. Rated Voltage
   300 VDC/125 VAC, 400 Hz or
   400 VDC/230 VAC, 400 Hz
   B. Current Rating - see chart
   C. Insulation Resistance:
   At 25°C: 1,000 megohm-microfarad min., or 50,000 megohms min., whichever is less, at the rated DC voltage
   At 125°C: 100 megohm-microfarad min., or 10,000 megohms min., whichever is less
   D. Dielectric Withstanding Voltage (DWV):
   R-level designs:
   2.0 times rated DC voltage
   Class B, Class S designs:
   2.5 times rated DC voltage
3. Capacitance: Total capacitance listed in chart for each filter type is "guaranteed minimum value" (GMV)
5. Marking:
   Standard Marking: KYOCERA AVX, KYOCERA AVX part number, rated voltage, current, lot number, schematic

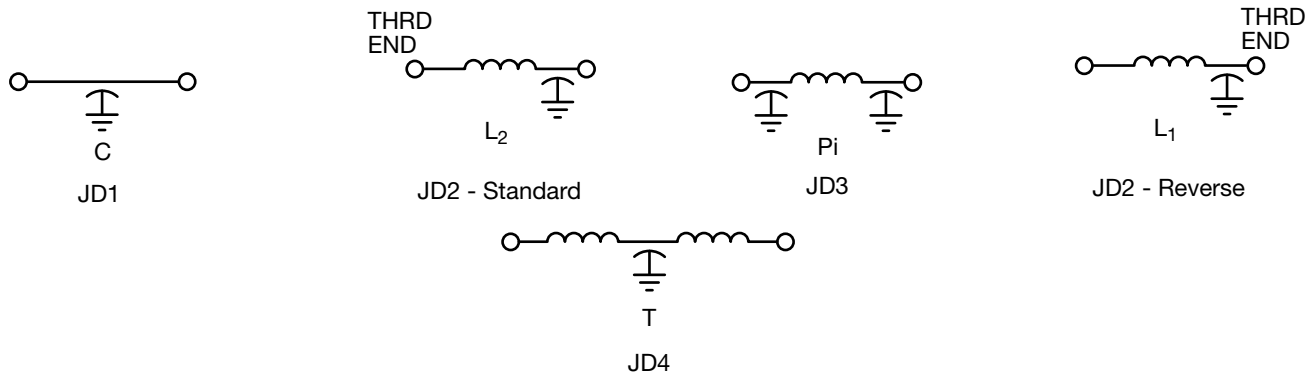
NOTE: Schematic to indicate location of inductor (standard or reverse) for JD2 L-Section Filters.
See Reliability Codes section for definition of Reliability Level marking.
See How to Order section for part number construction.

6. Installation:
   A. Mounting Torque: 60 oz-in. ± 4 oz-in.
   B. Refer to "Installation and Handling" section of Filter Design Guide

STANDARD CONFIGURATION



CIRCUIT DIAGRAMS



millimeters (inches)

0.08 (.003)	6.35 (.250)
0.13 (.005)	7.37 (.290)
0.18 (.007)	7.92 (.312)
0.25 (.010)	9.53 (.375)
0.38 (.015)	10.67 (.420)
0.51 (.020)	11.18 (.440)
0.56 (.022)	15.75 (.620)
1.14 (.045)	17.27 (.680)
1.57 (.062)	17.78 (.700)
2.36 (.093)	26.92 (1.060)
3.05 (.120)	30.61 (1.205)
3.18 (.125)	33.02 (1.300)

(See Note 2)

MIL-F-28861/17 (See P/N Table)

Dash No.	L Dimension Max.	Weight (grams) Max.
001	.700	18.0
002	1.060	20.0
003	1.060	20.0
004	1.060	20.0
005	1.060	20.0
006	1.060	20.0
007	1.060	20.0
008	1.060	20.0
009	1.060	20.0
010	1.060	20.0
011	1.060	20.0
012	1.205	29.0
013	1.205	29.0
014	1.205	29.0
015	1.205	29.0
016	1.205	29.0
017	1.300	29.0
018	1.300	29.0
019	1.300	29.0

MIL-F-28861/16 (See P/N Table)

Dash No.	L Dimension Max.
001	.700
002 through 011	1.060
012 through 016	1.205
017 through 019	1.300

Notes:

1. Refer to Part Number Table for L-Max for specific filter.
2. Metric equivalent dimensions given for information only.
3. All dimensions for JD series filters established per MIL-F-28861/16 and /17, and DESC 84083 and 84084 requirements.

Cylindrical Style EMI Filters
JD Series – .690 Dia.
Hermetically Sealed – Circuits Available – C, L, π, T

SPECIFICATIONS

							Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	Current (A)	CKT	CAP (µF)	DC Voltage	DCR (Ω)	L. dim	50 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
100 VDC, 1.2–2.8 µF													
JD1AB-125	15.0	C	1.200	100	0.008	0.700	16	27	34	43	60	60	60
JD1AB-704	15.0	C	1.2000	100	0.008	0.700	10	19	28	40	50	60	60
JD2AB-S07	0.50	L2	1.400	100	0.300	1.060	21	40	58	70	70	70	70
JD2AB-S08	1.00	L2	1.400	100	0.210	1.060	19	37	55	70	70	70	70
JD2AB-S10	3.00	L2	1.400	100	0.030	1.060	16	26	37	55	70	70	70
JD2AB-S11	5.00	L2	1.400	100	0.007	1.060	15	25	34	46	70	70	70
JD2AB-S12	10.0	L2	1.400	100	0.006	1.060	15	24	34	44	70	70	70
JD3AB-P07	0.50	π	2.800	100	0.300	1.205	40	70	80	80	80	80	80
JD3AB-P08	1.00	π	2.800	100	0.210	1.205	35	68	80	80	80	80	80
JD3AB-P10	3.00	π	2.800	100	0.030	1.205	13	43	73	80	80	80	80
JD3AB-P11	5.00	π	2.800	100	0.007	1.205	–	26	63	80	80	80	80
JD3AB-P12	10.0	π	2.800	100	0.006	1.205	20	30	40	70	70	80	80
JD4AB-T08	1.00	T	1.400	100	0.500	1.400	21	48	70	70	70	70	70
JD4AB-T09	2.00	T	1.400	100	0.090	1.400	15	26	44	70	70	70	70
JD4AB-T16	4.00	T	1.400	100	0.030	1.400	15	24	35	50	70	70	70
JD4AB-T12	10.0	T	1.400	100	0.005	1.400	14	24	34	44	60	70	70
200 VDC, .45–.9 µF													
JD1BB-904	15.0	C	0.900	200	0.006	0.700	12	21	30	40	53	60	60
JD1BB-454	15.0	C	0.450	200	0.006	0.700	6	16	24	34	51	60	60
JD2BB-S07	0.50	L2	0.450	200	0.300	1.060	10	30	48	65	70	70	70
JD2BB-S08	1.00	L2	0.450	200	0.210	1.060	8	28	45	65	70	70	70
JD2BB-S10	3.00	L2	0.450	200	0.030	1.060	6	16	28	45	60	70	70
JD2BB-S11	5.00	L2	0.450	200	0.007	1.060	6	14	24	36	52	70	70
JD2BB-S12	10.0	L2	0.450	200	0.006	1.060	6	15	24	34	50	70	70
JD3BB-P07	0.50	π	0.900	200	0.300	1.205	15	50	70	80	80	80	80
JD3BB-P08	1.00	π	0.900	200	0.210	1.205	11	46	70	80	80	80	80
JD3BB-P10	3.00	π	0.900	200	0.030	1.205	–	18	50	80	80	80	80
JD3BB-P11	5.00	π	0.900	200	0.007	1.205	–	13	40	70	80	80	80
JD3BB-P12	10.0	π	0.900	200	0.006	1.205	9	20	30	40	55	80	80
JD4BB-T08	1.00	T	0.450	200	3.000	1.400	18	50	70	80	80	80	80
JD4BB-T09	2.00	T	0.450	200	0.210	1.400	12	48	70	80	80	80	80
JD4BB-T16	4.00	T	0.450	200	0.030	1.400	–	18	24	42	80	80	80
JD4BB-T12	10.0	T	0.450	200	0.006	1.400	–	12	22	34	70	80	80

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).

SPECIFICATIONS

							Insertion Loss[1] Per MIL-STD-220, +25°C						
P/N	Current (A)	CKT	CAP (µF)	DC Voltage	DCR (Ω)	L. dim	50 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
300 VDC (125 VAC/400Hz*), .3–.36 µF													
JD1LB-304	15.0	C	0.300	300	0.008	0.700	7	16	22	32	46	58	70
JD2LB-S07	0.50	L2	0.300	300	0.330	1.060	13	28	40	60	60	70	70
JD2LB-S08	1.00	L2	0.300	300	0.150	1.060	6	24	37	56	60	70	70
JD2LB-S10	3.00	L2	0.300	300	0.026	1.060	7	17	24	42	70	70	70
JD2LB-S11	5.00	L2	0.300	300	0.013	1.060	7	16	22	34	68	70	70
JD2LB-S12	10.0	L2	0.300	300	0.008	1.060	7	16	20	30	56	70	70
JD3LB-P07	0.50	π	0.360	300	0.330	1.205	14	44	62	80	80	80	80
JD3LB-P08	1.00	π	0.360	300	0.150	1.205	–	37	56	80	80	80	80
JD3LB-P10	3.00	π	0.360	300	0.026	1.205	–	18	40	70	80	80	80
JD3LB-P11	5.00	π	0.360	300	0.013	1.205	–	–	25	60	80	80	80
JD3LB-P12	10.0	π	0.360	300	0.008	1.205	–	–	–	50	80	80	80
JD4LB-T08	1.00	T	0.300	300	0.070	1.400	6	18	28	58	70	70	70
JD4LB-T09	2.00	T	0.300	300	0.050	1.400	6	16	22	37	70	70	70
JD4LB-T16	4.00	T	0.300	300	0.030	1.400	6	16	20	34	70	70	70
JD4LB-T12	10.0	T	0.300	300	0.008	1.400	–	–	19	30	48	60	70
400 VDC (230 VAC/400Hz*), .15–.2 µF													
JD1EB-154	15.0	C	0.150	400	0.008	.700	–	10	16	26	40	52	70
JD2EB-S07	0.50	L2	0.150	400	0.330	1.060	5	24	32	50	60	70	70
JD2EB-S08	1.00	L2	0.150	400	0.150	1.060	–	19	30	46	60	70	70
JD2EB-S10	3.00	L2	0.150	400	0.026	1.060	–	11	19	36	60	70	70
JD2EB-S11	5.00	L2	0.150	400	0.013	1.060	–	10	16	28	54	70	70
JD2EB-S12	10.0	L2	0.150	400	0.008	1.060	–	10	16	25	48	70	70
JD3EB-P07	0.50	π	0.200	400	0.330	1.205	–	34	52	80	80	80	80
JD3EB-P08	1.00	π	0.200	400	0.150	1.205	–	27	46	74	80	80	80
JD3EB-P10	3.00	π	0.200	400	0.026	1.205	–	–	30	60	80	80	80
JD3EB-P11	5.00	π	0.200	400	0.013	1.205	–	–	12	50	80	80	80
JD3EB-P12	10.0	π	0.200	400	0.008	1.205	–	–	–	30	80	80	80
JD4EB-T08	1.00	T	0.150	400	0.070	1.300	–	12	25	48	70	70	70
JD4EB-T09	2.00	T	0.150	400	0.050	1.300	–	10	18	40	64	70	70
JD4EB-T16	4.00	T	0.150	400	0.030	1.300	–	10	16	31	58	70	70
JD4EB-T12	10.0	T	0.150	400	0.008	1.300	–	–	15	25	45	60	70

[1] Insertion loss limits are based on theoretical values. Actual measurements may vary due to internal capacitor resonances and other design constraints.

NOTE: All "L2" circuits are also available as "L1". Insertion loss and other parameters are identical. Only the part number changes (e.g., L2 = GK2LA-S04, L1 = GK2LA-R04).