

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

- Case/Terminal Plating:
Electro-tin standard – Silver or gold available

- Material:
Case: Brass standard – Steel available
End Seal: Mild steel
Terminals: Nickel-iron alloy

- Operating Temperature Range:
-55°C to +125°C

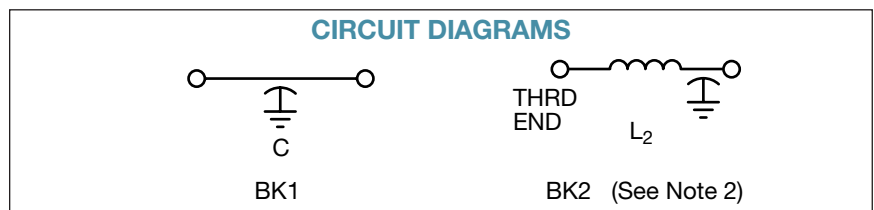
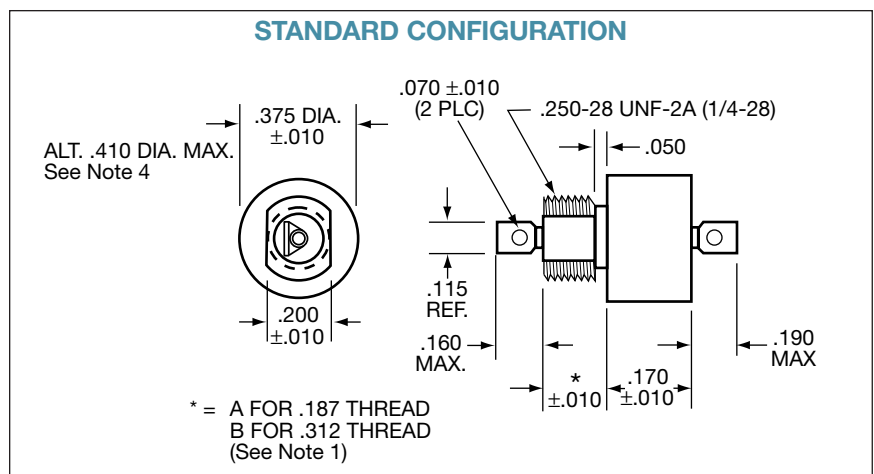
- Electrical Characteristics:
 - Rated Voltage: See chart
 - Insulation Resistance:
At 25°C: 1,000 megohm-microfarad min., or 50,000 megohms, whichever is less, at the rated DC voltage
At 125°C: 100 megohm-microfarad min., or 5,000 megohms, whichever is less

- Dielectric Withstanding Voltage (DWV):
R-level designs:
2.0 times rated DC voltage
Class B, Class S designs:
2.5 times rated DC voltage

- Capacitance: Values listed in chart are “guaranteed minimum value” (GMV)

- Marking:
Standard Marking: AVX, 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.

- Installation:
 - Mounting Torque:
44 oz-in. ± 4 oz-in.
 - Refer to “Installation, Handling, Hardware Options” section of the catalog.



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:

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

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SPECIFICATIONS

AVX P/N	CKT	CAP ¹	DC Voltage	Insertion Loss ² Per MIL-STD-220, +25°C						
				30 KHz	150 KHz	300 KHz	1 MHz	10 MHz	100 MHz	1 GHz
BK1CA-125	C	1.2	50	15	28	33	40	40	70	70
BK1CB-125	C	1.2	50	15	28	33	40	40	70	70
BK2CA-125	L2	1.2	50	15	28	33	40	40	70	70
BK2CB-125	L2	1.2	50	15	28	33	40	40	70	70
BK1NA-704	C	.7	70	10	24	30	40	40	64	70
BK1NB-704	C	.7	70	10	24	30	40	40	64	70
BK2NA-704	L2	.7	70	10	24	30	40	40	64	70
BK2NB-704	L2	.7	70	10	24	30	40	40	64	70
BK1AA-103	C	.01	100	–	–	–	2	20	40	55
BK1AA-454	C	.45	100	6	19	25	36	40	60	70
BK1AB-454	C	.45	100	6	19	25	36	40	60	70
BK1AA-754	C	.75	100	11	24	30	40	40	64	70
BK1AA-105	C	1.0	100	12	24	30	40	40	65	70
BK2AA-454	L2	.45	100	6	19	25	36	40	60	70
BK2AB-454	L2	.45	100	6	19	25	36	40	60	70
BK2AA-754	L2	.75	100	11	24	30	40	40	64	70
BK2AA-105	L2	1.0	100	12	24	30	40	40	65	70
BK1HA-254	C	.25	150	–	14	20	31	40	56	70
BK1HB-254	C	.25	150	–	14	20	31	40	56	70
BK2HA-254	L2	.25	150	–	14	20	31	40	56	70
BK2HB-254	L2	.25	150	–	14	20	31	40	56	70
BK1LA-753	C	.075	200*	–	–	7	18	37	46	70
BK1LA-154	C	.15	200*	–	10	16	26	40	52	70
BK1LB-154	C	.15	200*	–	10	16	26	40	52	70
BK2BA-203	L2	.02	200*	–	–	–	7	25	40	60
BK2LA-753	L2	.075	200*	–	–	7	18	37	51	70
BK2LA-154	L2	.15	200*	–	10	16	26	40	52	70
BK2LB-154	L2	.15	200*	–	10	16	26	40	52	70

* Also rated 125 VAC/400 Hz

¹ Decimal point values indicate capacitance in microfarads.
Non-decimal point values indicate capacitance in picofarads.

² Insertion loss limits are based on theoretical values.
Actual measurements may vary due to internal capacitor
resonances and other design constraints.