



5A EMI FILTER

BFL2805

4707 Dey Road Liverpool, N.Y. 13088

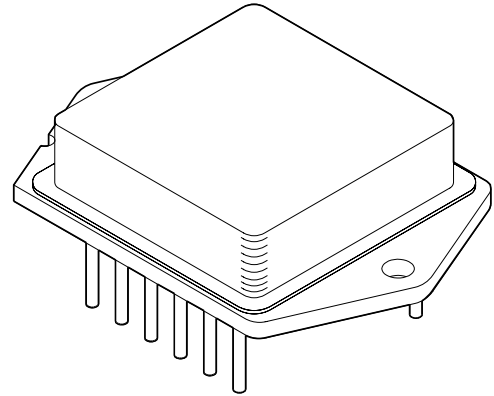
(315) 701-6751

HI-REL DESIGN

- REPLACES APEX FDB461
- WELDED HERMETIC PACKAGE
- ALL CERAMIC CAPACITORS
- SURFACE MOUNT MAGNETICS

FEATURES

- -55° TO +125°C OPERATION
- 50db MINIMUM DIFFERENTIAL MODE REJECTION AT 500 KHz
- 5.5 AMPS THROUGHPUT CURRENT
- MEETS MIL-STD-461C CE03 STANDARDS FOR MSK BBF2800 SERIES DC-DC CONVERTERS
- MIL-STD-704A THROUGH E POWER BUS COMPATIBILITY



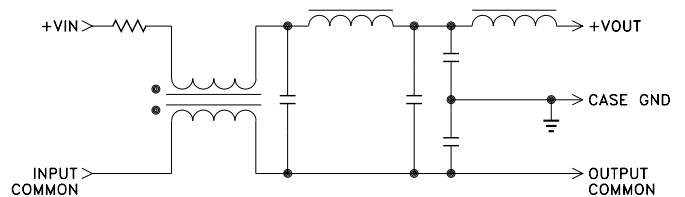
DESCRIPTION

The BFL2805 is a high reliability EMI filter for use with MSK BBF2800 series of DC-DC converters. This filter has been designed to reduce the input line reflected ripple current to within the limit of MIL-STD-461C, CE03.

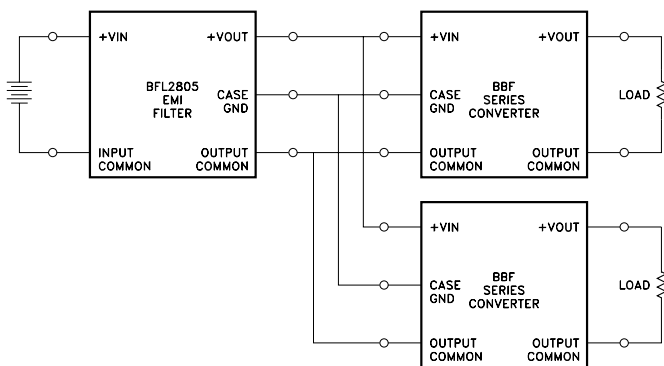
BFL2805 hybrid EMI filters utilize all ceramic capacitors, surface mount magnetics and ultrasonically bonded aluminum wires to provide reliable operation at all operating temperatures while surviving very high G forces.

The 12-pin high profile dip package allows connection to a heatsink and is hermetically sealed and isolated from the internal circuits. Heat sinking is recommended for full power operation at elevated ambient temperatures.

EQUIVALENT SCHEMATIC



TYPICAL APPLICATION



EXTERNAL CONNECTIONS

- | | |
|----------------|-----------------|
| 1 +VIN | 12 N/C |
| 2 INPUT COMMON | 11 N/C |
| 3 N/C | 10 N/C |
| 4 N/C | 9 CASE GROUND |
| 5 N/C | 8 +VOUT |
| 6 N/C | 7 OUTPUT COMMON |

BFL2805

ABSOLUTE MAXIMUM RATINGS SPECIFICATIONS

ABSOLUTE MAXIMUM RATINGS

| | |
|-----------------------------|---------------|
| INPUT VOLTAGE RANGE | 0-50Vdc |
| INPUT VOLTAGE TRANSIENT | 50V @ 50µs |
| TEMPERATURE RANGE, storage | -65 to 150°C. |
| OPERATING TEMPERATURE, case | -55 to 125°C. |

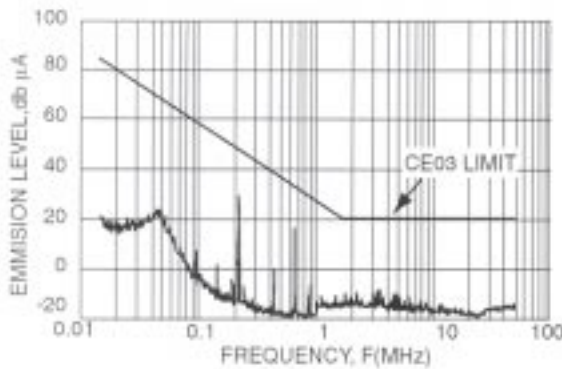
SPECIFICATIONS

| PARAMETER | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------------------------|--------------------------|-----|----------------------------------|------|-------|
| INPUT VOLTAGE | STEADY STATE | 0 | 28 | 40 | V |
| INPUT VOLTAGE | TRANSIENT 50 µ sec. MAX | | | 50 | V |
| INPUT CURRENT | DC | | | 5.5 | A |
| OUTPUT VOLTAGE | STEADY STATE | | $V_{out} = V_{in} - I_{in}(RDC)$ | | Vdc |
| OUTPUT CURRENT | RIPPLE | | | 0.3 | A rms |
| OUTPUT CURRENT | STEADY STATE | | | 5.5 | A |
| DC RESISTANCE (Rdc) | T = 25°C | | 0.20 | 0.35 | Ohms |
| NOISE REDUCTION | 200 KHz | 35 | 40 | | db |
| NOISE REDUCTION | 500 KHz | 50 | 60 | | db |
| CAPACITANCE | ANY PIN TO CASE | | | 4.7 | µF |
| ISOLATION | ANY PIN TO CASE, 500 Vdc | 100 | | | MOhm |
| OPERATING TEMPERATURE RANGE | CASE BASEPLATE | -55 | | +125 | °C |
| STORAGE TEMPERATURE RANGE | CASE BASEPLATE | -65 | | +150 | °C |

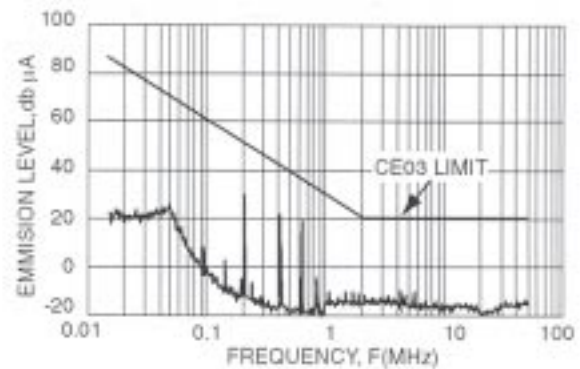
- NOTES: 1. Tcase= 25°C unless otherwise specified.
 2. Longterm operation at the maximum temperature will result in reduced product life. Derate internal power dissipation to achieve high MTTF.

TYPICAL PERFORMANCE GRAPHS

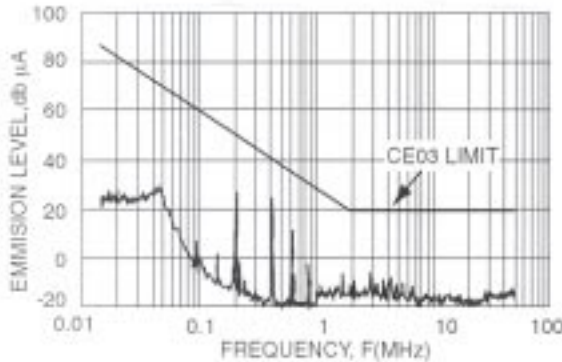
BBF2803S CONVERTER WITH BFL2805 FILTER



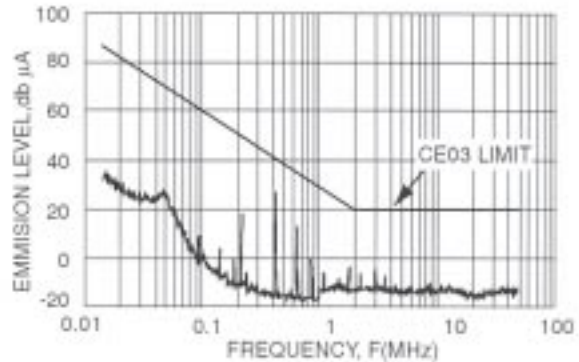
BBF2805S CONVERTER WITH BFL2805 FILTER



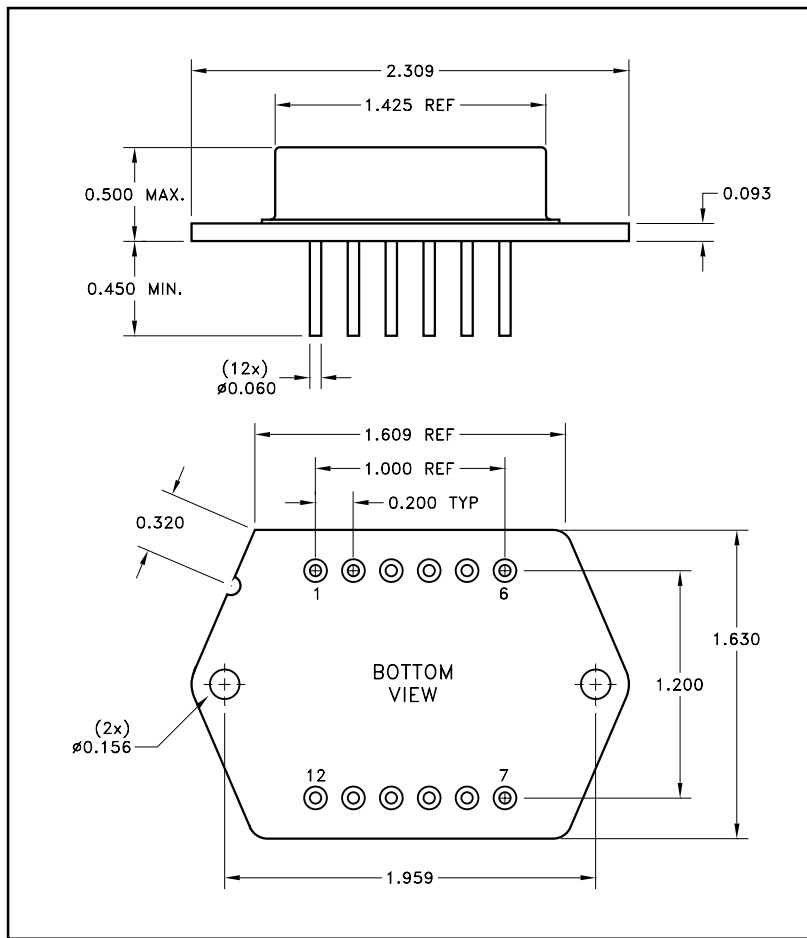
BBF2812S CONVERTER WITH BFL2805 FILTER



BBF2815S CONVERTER WITH BFL2805 FILTER



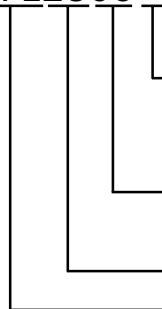
MECHANICAL SPECIFICATIONS



NOTE: ALL DIMENSIONS ARE ± 0.010 INCHES UNLESS OTHERWISE LABELED.
ESD Triangle indicates Pin 1.

ORDERING INFORMATION

BFL2805



SCREENING

BLANK = INDUSTRIAL; E = EXTENDED RELIABILITY;
H = CLASS H; K = CLASS K

OUTPUT CURRENT

05 = 5 AMP

NOMINAL INPUT VOLTAGE

GENERAL PART NUMBER

The above example is an industrial grade 5 Amp EMI Filter

M.S. Kennedy Corp.

4707 Dey Road, Liverpool, New York 13088

Phone (315) 701-6751

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www.mskennedy.com

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