

International **IR** Rectifier

PD - 94589

ADVANCED ANALOG EMI FILTER

ASF461 SERIES

Description

The ASF461 EMI filter will reduce the input line reflected ripple current of the ASA line of DC/DC converters to levels below the CEO3 limits of MIL-STD-461.

These EMI filters are available with military screening and built in a facility fully qualified to MIL-PRF-38534. Four grades are offered with different screening options. Refer to Part Number section.

The ASF461 Filter is built using thick film hybrid technology and seam welded in a hermetic kovar package for high reliability.

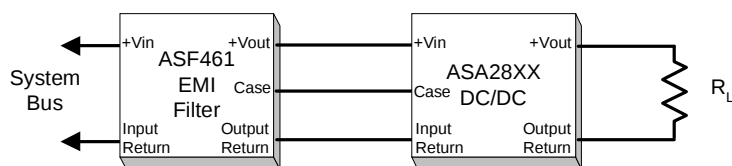
These units offer superior noise reduction and power dissipation when compared with similar competitive filters. No derating is required over the entire operating temperature range.



Features

- Uses less than 1.2 sq. in. of Board Space
- -55°C to +125°C Operation
- Greater than 50db Ripple Current Reduction
- Optimal Military Screening
- No Derating for -55°C to +125°C Operation

Typical Application



ASF461 Series

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Specifications

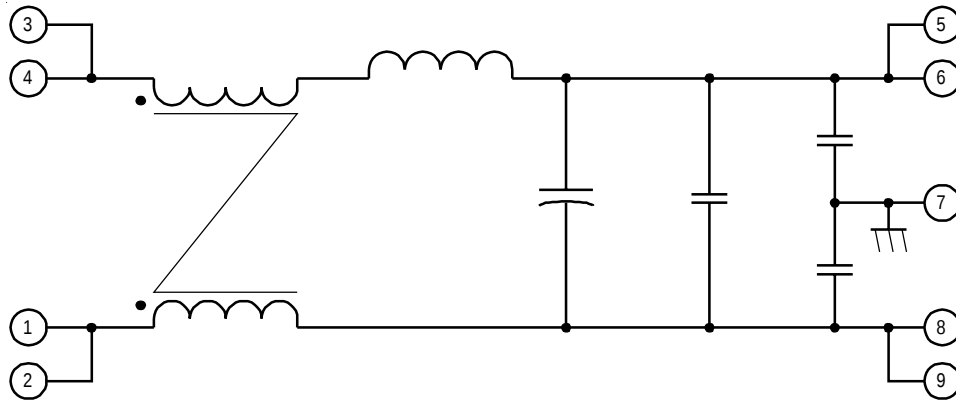
Parameter	Condition	Min	Typ	Max	Unit
Input Voltage	Steady State	0	28	50	VDC
Input Current	Steady State			420	mADC
Output Voltage	Steady State	$V_{OUT} = V_{IN} (I_{IN} \times R_{DC})$			VDC
Output Current	Steady State			420	mADC
DC Resistance (R_{DC})	Steady State	1.7	2.0	2.3	ohms
Power Dissipation	Max. Current 420 mA			1.6	watts
Noise Rejection	100 KHz 500 KHz to 10 MHz	-40 -60			db
Capacitance	Any pin to case			4200	pf
Isolation	Any pin to case 500VDC	100			MΩ
Operating Temp	Base plate	-55	+25	+125	°C
Storage Temp	Base plate	-65	+25	+150	°C
Weight				39	grams

Available Screening Levels and Process Variations for ASF461 Series

Requirement	MIL-STD-883 Method	No Suffix	ES Suffix	HB Suffix	CH Suffix
Temperature Range		-20°C to +85°C	-55°C to +125°C	-55°C to +125°C	-55°C to +125°C
Element Evaluation					MIL-PRF-38534
Internal Visual	2017	*	Yes	Yes	Yes
Temperature Cycle	1010		Cond B	Cond C	Cond C
Constant Acceleration	2001		500g	Cond A	Cond A
Burn-in	1015	48hrs @ 85°C	48hrs @ 125°C	160hrs @ 125°C	160hrs @ 125°C
Final Electrical (Group A)	MIL-PRF-38534 Specification	25°C	25°C	-55, +25, +125°C	-55, +25, +125°C
Seal, Fine & Gross	1014	Cond C	Cond A, C	Cond A, C	Cond A, C
External Visual	2009	*	Yes	Yes	Yes

* Per Commercial Standards

ASF461 Block Diagram

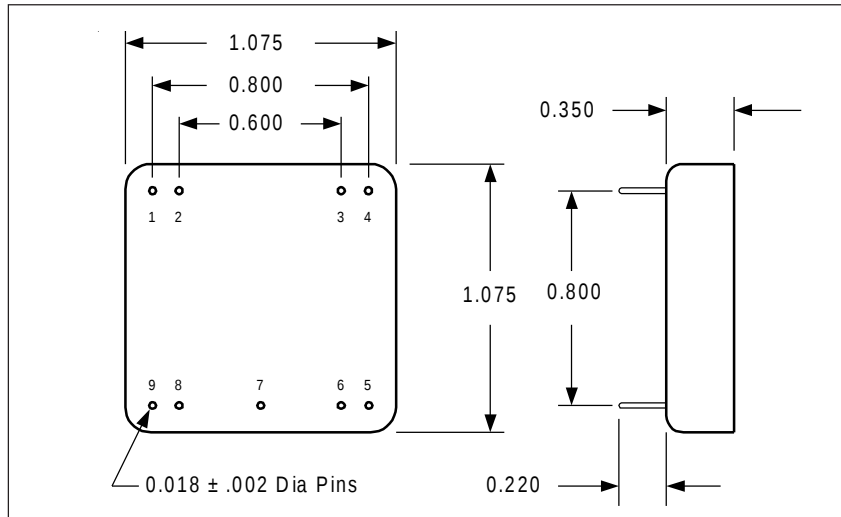


Refer to last page for Pin Designation

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ASF461 Case Outline



Pin Designation

Pin No.	Designation
1	Input Return *
2	Input Return *
3	Input *
4	Input *
5	Output *
6	Output *
7	Case
8	Output Return *
9	Output Return *

* Make external connection to both Pins

Part Numbering

ASF 461 / CH

Model —
Applicable Military Specification —
Screening —, ES, HB, CH

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Visit us at www.irf.com for sales contact information.

Data and specifications subject to change without notice. 11/02