LAMBDA ADVANCED ANALOG INC. PRODUCT PREVIEW

ASF461 Series
EMI Filter

DESCRIPTION

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

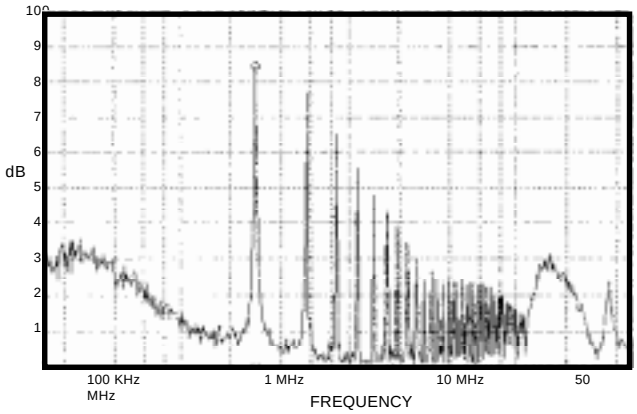
These EMI filters are available with military screening and built in a facility fully qualified to MIL-STD-1772. Two grades are offered with different screening options. Refer to Part Number section.

The ASF461 Filter is built using thickfilm 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 filters from our competitors. No derating is required over the entire operating temperature range.

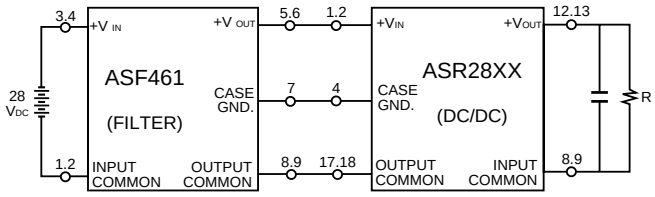
FEATURES

- Uses less than 1.2 sq. in. of board space
- -55°C to +125°C operation
- Greater than 50db ripple current reduction
- Optional military screening
- No derating for -55°C to +125°C operation



Narrow Band Spectrum of an ASR 2815D without EMI Filter

TYPICAL APPLICATION



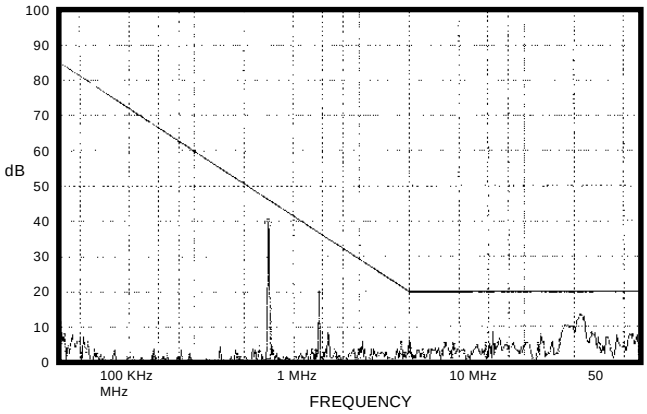
PART NUMBER

ASF 461 / X

Model

Series

Temperature Range
Omit for -55°C to 85°C
HB -55°C to 125°C

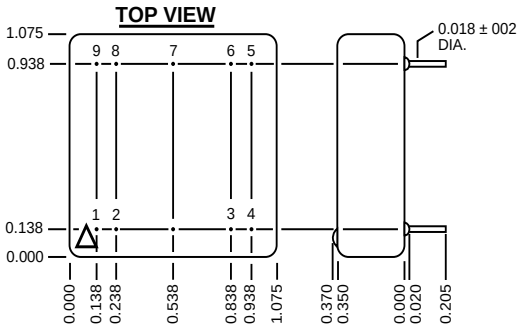


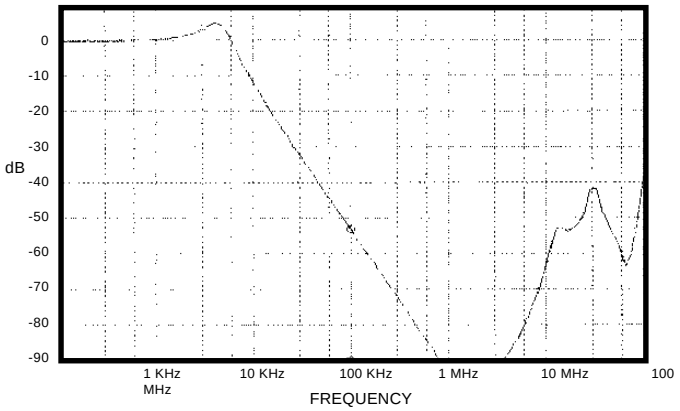
Narrow Band Spectrum of an ASR 2815D with ASF461 Filter

SPECIFICATIONS

Parameter	Condition	Min	Typ	Max	Unit
INPUT VOLTAGE	STEADY STATE	0	28	50	V_{DC}
INPUT CURRENT	STEADY STATE			420	mA_{DC}
OUTPUT VOLTAGE	STEADY STATE	$V_{OUT} = V_{IN} (I_{IN} \times R_{DC})$			V_{DC}
OUTPUT CURRENT	STEADY STATE			420	mA_{DC}
DC RES (R_{DC})[3]	STEADY STATE	1.7	2.0	2.3	ohms
POWER DISS.	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 500V_{DC}	100			Mohms
OPERATING TEMP[1]	BASEPLATE	-55	+25	+125	°C
STORAGE TEMP	BASEPLATE	-65	+25	+150	°C
WEIGHT				39	Grams

MECHANICAL OUTLINE





ASF 461 Frequency Response

PIN DESCRIPTION

DESIGNATION	PIN
In common	1,2*
$+V_{IN}$	3,4*
$+V_{OUT}$	5,6*
Case GND	7
Out common	8,9*

*Make external connection of both pins

SCREENING PROCESS

Test Inspection	Method	Conditlon
Pre-Seal Internal Visual	2017	
Stabilization Bake	1008	C
Temperature Cycling	1010	C
Constant Acceleration	2001	A
Burn-in	1015	$T_C = T_{CMAX}$
Final Electrical Test (Group A)	25°C and extremes	
External Visual	2009	

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LAMBDA ADVANCED ANALOG INC.

MIL-STD-1772 Qualified

2270 Martin Avenue
Santa Clara CA 95050-2781
(408) 988-4930 FAX (408) 988-2702