

AFV461 Series EMI Filter

DESCRIPTION

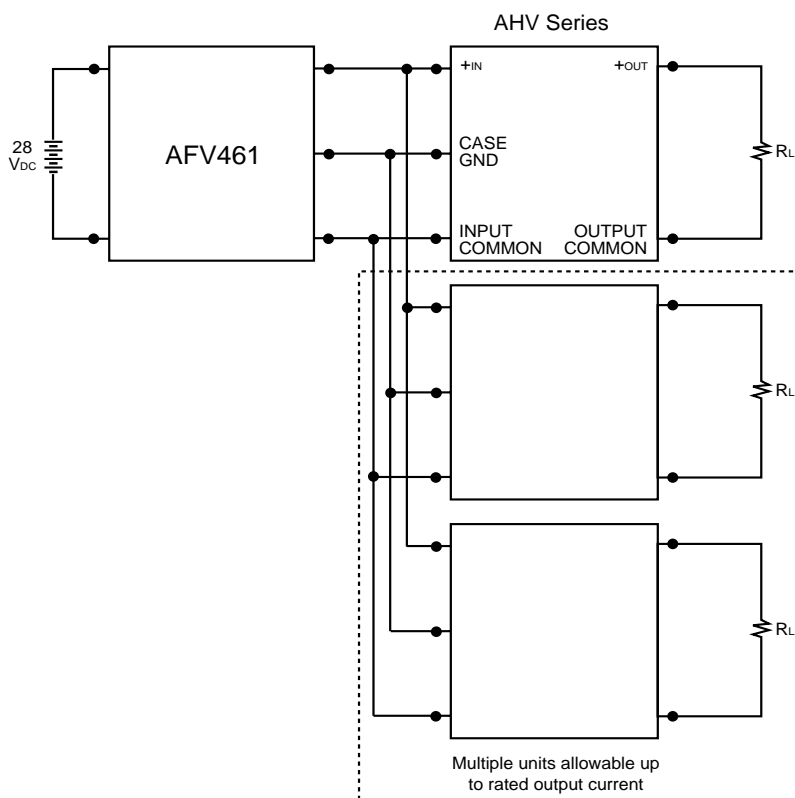
The AFV461 EMI filter will reduce the input line reflected ripple current of all DC/DC converter families to levels below the CEO3 limits of MIL-STD-461. This filter is intended for applications requiring compatibility to MIL-STD-704A.

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

FEATURES

- 4.0 amp input current - max.
- 40 dB noise reduction min. @ 100 KHz
- -55°C to +125°C operation
- Military screening
- Compatible with all standard 28 volts input DC/DC converters
- No derating for -55°C to +125°C operation
- No tantalum capacitors for high reliability

TYPICAL APPLICATION

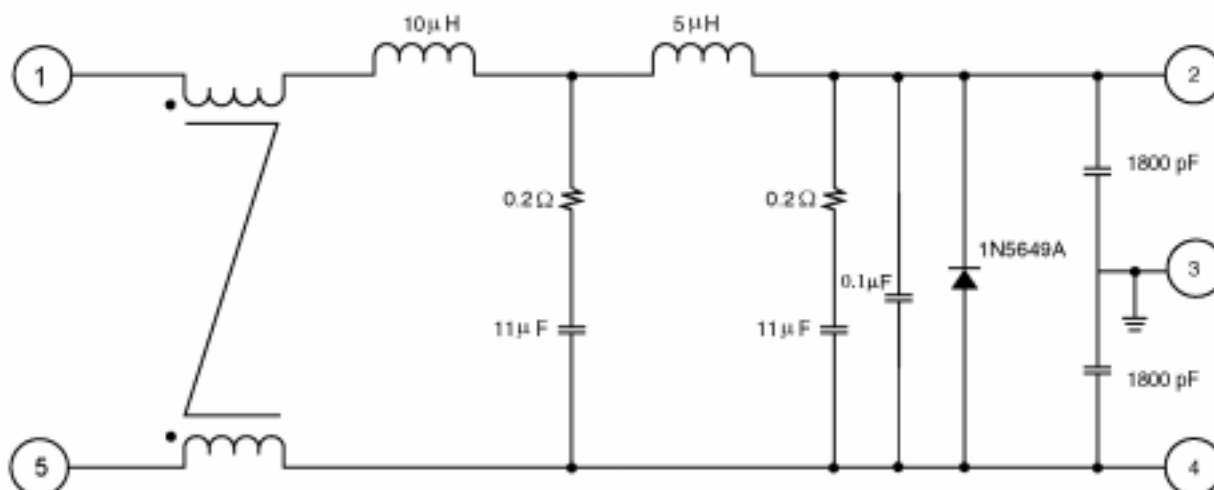


SPECIFICATIONS

Parameter	Condition				
		Min	Typ	Max	Unit
Input Voltage ¹	Steady State	0	28	40	V _{DC}
	100 ms Surge			80	
Input Current	DC			4.0	Amps
	Ripple			1.0	Amps RMS
Output Voltage ¹	Steady State	$V_{OUT} = V_{IN} - I_{IN} (R_{DC})$			V _{DC}
Output Current	Steady State			4.0	Amps
DC Resistance (R _{dc})	Steady State	0.07	0.10	0.15	Ohms
Power Dissipation	Max. DC Current			1.6	Watts
Noise Reduction	100 KHz to 50 MHz	40			dB
Capacitance	Any pin to case			4200	pF
Isolation	Any pin to case 500V _{dc}	100			MΩ
Operating Temperature	Case	-55		+125	°C
Storage Temperature		-65		+150	°C
Weight				39	Grams

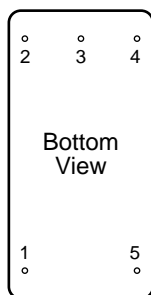
Notes:

1. Typical applications result in V_{OUT} within 2% of V_{IN}



PIN DESIGNATION

Pin 1 +V_{IN}
 Pin 2 +V_{OUT}
 Pin 3 Case Ground
 Pin 4 Output Common
 Pin 5 Input Common



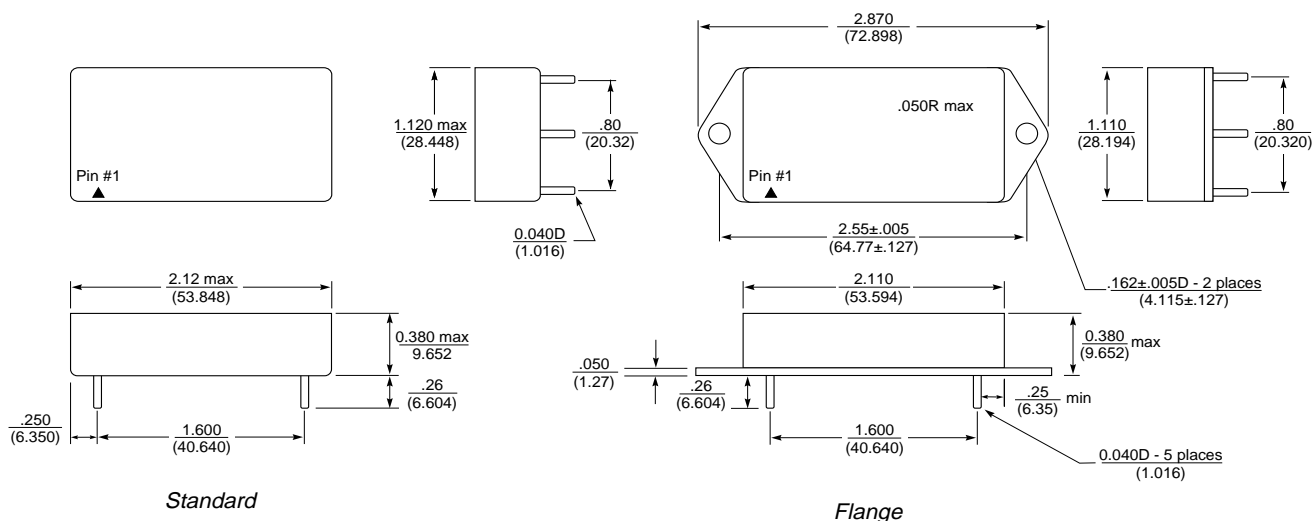
PART NUMBER

AFV 461 x / x

Model
 Series
 Package
 Omit for standard

Screening (see table below)
 Omit for industrial
 ES— Environmental screening
 HB— Military screening
 CH— Fully compliant
 (See Table for SID)

MECHANICAL OUTLINE



SCREENING DETAILS

Requirement	MIL-STD-883 Method	No Suffix	ES Suffix	HB Suffix	CH Suffix
Temperature Range		-20 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	96hrs @ 125°C	96hrs @ 125°C	160hrs @ 125°C	160hrs @ 125°C
Final Electrical (Group A)	MIL-PRF-38534	25°C	25°C	-55, +25, +125°C	-55, +25, +125°C
Seal, Fine & Gross	1014	*	Cond A, C	Cond A, C	Cond A, C
External Visual	2009	*	Yes	Yes	Yes

* Per Commercial Standards

SID (Selected Item Drawing)	
Model	Drawing Number
AFV461/CH	SID 9102002HXX
AFV461F/CH	SID 9102002HZX