

## **Electronics**

#### Compact RFI Line Filter with DC Inlet Connector

# DA Series



**UL Recognized CSA** Certified **TUV Approved** 



#### **DA Series**

The DA Series filters were designed as general purpose line filters for DC applications up to 125VDC. They are compact with a 3-pin inlet connector. They are available in 3, 6, 10 and 15 amp versions. They are flange mount with 1/4" or PCB terminals.

The DA Series addresses the increasing need for DC rated filters with a standard DC power inlet. It was designed and first used for communication oriented customer premises equipment and central office equipment, but is not restricted to that. Any internal DC connection within larger multi-component systems, or external DC connection between user installed components which require filtering will benefit. Some examples include desktop servers, routers, switches, multiplexors, aggregators, concentrators, process control equipment as well as DC powered peripheral equipment.

The DA Series mates with a standard MOLEX connector (HCS Series) which is readily available and better prevents accidental connection to AC power.

#### **Electrical Schematic**



## **Specifications**

Hipot rating (one minute):

line-to-ground 2250 VDC line-to-line 1450 VDC Rated voltage (max): 125 VDC Operating ambient temperature range

@ rated current I<sub>r</sub>: -10°C to +55°C

In an ambient, Ta, higher than +55°C, the maximum operating current,  $I_0$ , is as follows:  $I_0 = I_r \sqrt{\frac{90 - T_a}{35}}$ 

#### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

Current		Frequency-MHz									
Rating	.05	.1	.15	.5	1	3	5	10	30	100	200
3A	6	9	11	26	41	48	52	55	46	22	16
6A	2	4	6	18	30	37	42	48	42	-	-
10A	-	1	4	8	17	25	30	36	38	21	11
15A	-	-	-	3	5	13	19	25	29	10	14

Line-to-line in 50 ohm circuit

Current	Frequency-MHz										
Rating	.05	.1	.15	.5	1	3	5	10	30	100	200
3A	-	4	7	16	18	37	47	50	43	31	36
6A	-	4	7	19	21	27	40	53	41	-	-
10A	2	4	6	17	22	23	32	48	38	30	26
15A	-	-	2	17	19	29	33	37	37	31	28

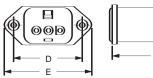
\*For higher amperage versions, contact Tyco Electronics.

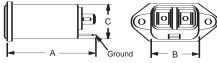
Revised 04-06

#### Compact RFI Line Filter with DC Inlet Connector (Continued)

# **DA Series**

# Case Styles DAF1

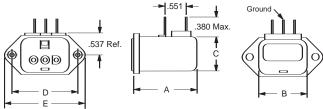




Typical dimensions:

Terminals: .250 [*6.35*] (3) Slot: .07 x .16 [*1.8* x *3.8*] (1) Holes: .07 [1.8] Dia.(2)

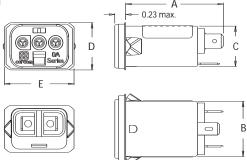
#### **DAFP**



Typical dimensions:

Mounting holes: .132 [3.35] Dia. (2) with .260 [6.60] Dia. x  $90^{\circ}$ C countersunk for #4 flathead screw.

#### DAS<sub>1</sub>



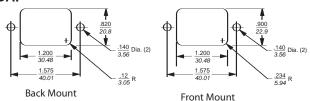
Rear View

Typical dimensions: Terminals: .250 [*6.35*] (3) Slot: .07 x .16 [*1.8* x *3.8*] (1)

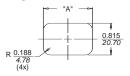
Holes: .07 [1.8] Dia.(2)

#### **Recommended Panel Cutout**

#### DAF



#### DAS



Panel Thickness	A Dim.±.002
0.031 - 0.052 [ <i>.79 - 1.32</i> ]	1.260 [ <i>32.00</i> ]
0.046 - 0.068 [1.17 - 1.73]	1.350 [ <i>34.29</i> ]

#### **Case Dimensions**

Part No.	A (max)	B (max)	C (max)	D ±.010 ±.25	E (max)
DAF1	2.15	1.12	0.81	1.575	1.98
D/ (i i	54.61	28.45	20.57	40.01	50.29
DAS1	1.98	1.10	0.81	0.96*	1.41
D/(O)	50.29	27.94	20.57	24.38	35.81
DAFP	1.54	1.12	0.81	1.575	1.98
D/ (i i	39.12	28.45	20.57	40.01	50.29

\*represents Max. dimension

#### **Part Numbers**

3DAF1	10DAF1
3DAS1	10DAS1
3DAFP	10DAFP
6DAF1	15DAF1
6DAS1	15DAS1
6DAFP	15DAFP
DC Connector No.	GA310

## **Mating Connectors**



Green/Yellow

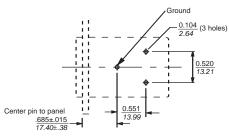
#### **CORCOM Part Number:**

**GA310** - Custom connector assembly with 3, 36" long 18 gauge wires to mate with DA Series filter

#### **MOLEX Component Part Numbers:**

03-12-1036 Connector housing to mate with DA Series 18-12-1222 Female Terminal (3 needed per housing)

#### PCB Layout (board viewed from component side)



Typical dimensions:

Mounting Holes: .188 [4.78] Dia. (2)

Torque: 18  $\pm$  2 in. lb.