## Electronics

## DA Series

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Compact RFI Line Filter with DC Inlet Connector

## DA Series

The DA Series filters were designed as general purpose line filters for DC applications up to 125 VDC . 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 |
| ated voltage (max): | 125 VDC |
| perating ambient temperature range |  |
| @ rated current $\mathrm{I}_{r}$ : | $-10^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$ |

In an ambient, $\mathrm{T}_{\mathrm{a}}$, higher than $+55^{\circ} \mathrm{C}$, the maximum
operating current, $I_{0}$, is as follows: $I_{0}=I_{r} \sqrt{\frac{90-T_{2}}{35}}$
Minimum insertion loss in dB :
Line-to-ground in 50 ohm circuit

| Current |  |  |  |  |  | y-M |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 Rating | Frequency-MHz |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | . 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.

## DA Series

Case Styles
DAF1


Typical dimensions:
Terminals: . 250 [6.35 (3) Holes: 07 [1.8] Dia.(2)
Slot: . $07 \times .16[1.8 \times 3.8$ (1)
DAFP


Typical dimensions:
Mounting holes: . 132 [3.35] Dia. (2) with .260 [ 6.69 Dia. $\times 90^{\circ} \mathrm{C}$ countersunk for \#4 flathead screw.

DAS1


Rear View
Typical dimensions:
Terminals: . 250 [6.35 (3)
Holes: . 07 [1.8 Dia.(2)
Slot: . $07 \times 16[1.8 \times 3.8$ (1)

## Recommended Panel Cutout

DAF


Back Mount


Front Mount

## DAS



Case Dimensions

| Part No. | A <br> $(\max )$ | B <br> max) | C <br> $(\max )$ | D <br> $\pm .010$ | E <br> $(\max )$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| DAF1 | 2.15 | 1.12 | 0.81 | 1.575 | 1.98 |
|  | 54.61 | 28.45 | 20.57 | 40.01 | 50.29 |
| DAS1 | 1.98 | 1.10 | 0.81 | $0.96^{*}$ | 1.41 |
|  | 50.29 | 27.94 | 20.57 | 24.38 | 35.81 |
| DAFP | 1.54 | 1.12 | 0.81 | 1.575 | 1.98 |
|  | 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



## 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)


Mounting Holes: 188 [4.78 Dia. (2) Torque: $18 \pm 2 \mathrm{in}$. lb.

