

Minimum Depth, Cost-effective Shielded Power Inlet Filter

SRB Series



UL Recognized
CSA Certified
VDE Approved*



SRB Series

- Smallest depth Corcom RFI filter available
- Complete shield
- Wide range of capacitor values
- Attenuates coupled EMI up to 300MHz
- Minimal to low leakage current versions are suitable for patient and non-patient contact medical equipment.
- Full range of mounting and termination options including unique vertical and horizontal orientation slide in mounts eliminate the need for mounting hardware

Ordering Information

15 SRB S 1 - Q



*15A versions are tested by Underwriters Laboratories to US and Canadian requirements and are VDE approved at 10A, 250VAC

Specifications

Maximum leakage current each Line to Ground:

| Capacitor ID / Value | @120 VAC | @250 VAC |
|----------------------|----------|----------|
| Blank / None | 2 µA | 5 µA |
| Q / 33 pF | 2.1 µA | 3.65 µA |
| R / 100 pF | 9.6 µA | 16.6 µA |
| S / 220 pF | 19.2 µA | 33.2 µA |
| T / 330 pF | 24.0 µA | 41.5 µA |
| W / 470 pF | 0.04 mA | 0.07 mA |
| X / 1000 pF | 0.07 mA | 0.13 mA |
| Y / 2200 pF | 0.16 mA | 0.28 mA |
| Z / 3300 pF | 0.24 mA | 0.42 mA |

Hipot rating (one minute):

| | |
|-----------------|----------|
| Line to Ground: | 2250 VDC |
| Line to Line: | 1450 VDC |

Rated Voltage (max.):

250 VAC

Operating Frequency:

50/60 Hz

Rated Current:

15A*

Operating Ambient Temperature Range

(at rated current I_r): -10°C to +40°C
In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-T_a)/45}$

Capacitor Options

| Capacitor ID | Capacitor Value |
|--------------|-----------------|
| Q | 33 pF |
| R | 100 pF |
| S | 220 pF |
| T | 330 pF |
| W | 470 pF |
| X | 1000 pF |
| Y* | 2200 pF |
| Z* | 3300 pF |

*Not available in SRB8, SRBX or SRBY styles

Minimum Depth, Cost-effective Shielded Power Inlet Filter *(continued)*

SRB Series

Available Part Numbers

Flange Mount

| | | | |
|----------|----------|----------|----------|
| 15SRB1 | 15SRB2 | 15SRBP | 15SRB8 |
| 15SRB1-Q | 15SRB2-Q | 15SRBP-Q | 15SRB8-Q |
| 15SRB1-R | 15SRB2-R | 15SRBP-R | 15SRB8-R |
| 15SRB1-S | 15SRB2-S | 15SRBP-S | 15SRB8-S |
| 15SRB1-T | 15SRB2-T | 15SRBP-T | 15SRB8-T |
| 15SRB1-W | 15SRB2-W | 15SRBP-W | 15SRB8-W |
| 15SRB1-X | 15SRB2-X | 15SRBP-X | 15SRB8-X |
| 15SRB1-Y | 15SRB2-Y | 15SRBP-Y | |
| 15SRB1-Z | 15SRB2-Z | 15SRBP-Z | |

Snap-In

Slide-In

| | | | |
|-----------|-----------|-----------|-----------|
| 15SRBS1 | 15SRBS8 | 15SRBX8 | 15SRBY8 |
| 15SRBS1-Q | 15SRBS8-Q | 15SRBX8-Q | 15SRBY8-Q |
| 15SRBS1-R | 15SRBS8-R | 15SRBX8-R | 15SRBY8-R |
| 15SRBS1-S | 15SRBS8-S | 15SRBX8-S | 15SRBY8-S |
| 15SRBS1-T | 15SRBS8-T | 15SRBX8-T | 15SRBY8-T |
| 15SRBS1-W | 15SRBS8-W | 15SRBX8-W | 15SRBY8-W |
| 15SRBS1-X | 15SRBS8-X | 15SRBX8-X | 15SRBY8-X |
| 15SRBS1-Y | | | |
| 15SRBS1-Z | | | |

Electrical Schematic



Accessories

GA400: NEMA 5-15P to IEC 60320-1 C-13 line cord



Case Styles

SRB1



Typical Dimensions:
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw
 Line Inlet (1): IEC 60320-1 C14
 Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

SRB2



Typical Dimensions:
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw
 Line Inlet (1): IEC 60320-1 C14
 Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

SRBP



Typical Dimensions:
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw
 Line Inlet (1): IEC 60320-1 C14
 PC board pins (3): .031 [0.7] square, ± .003 [.07]

SRBS1



Typical Dimensions:
 Line Inlet (1): IEC 60320-1 C14
 Load Terminals (2): .250 [6.3] with .07 [1.8] Dia. hole
 Ground Terminal (1): .250 [6.3] with .07 x .16 [1.8 x 3.8] slot

Minimum Depth, Cost-effective Shielded Power Inlet Filter *(continued)*

SRB Series

Case Styles *(continued)*

SRB8



Typical Dimensions:
 Mounting holes (2): .132 [3.35] Dia. with .236 [5.99] Dia. x 90° countersink for #4 flathead screw
 Line Inlet (1): IEC 60320-1 C14
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

SRBS8



Typical Dimensions:
 Line Inlet (1): IEC 60320-1 C14
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

SRBX8



Typical Dimensions:
 Line Inlet (1): IEC 60320-1 C14
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

SRBY8



Typical Dimensions:
 Line Inlet (1): IEC 60320-1 C14
 Wire Leads: 4.0 [101.6] Min., 18AWG, UL1015

Case Dimensions

| Part No. | A (max.) | B (max.) | C (max.) | D $\pm .015$ $\pm .38$ | E (max.) |
|----------|----------------------|----------------------|----------------------|------------------------------|----------------------|
| 15SRB1 | 1.75 <i>44.45</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.58 <i>40.00</i> | 2.04 <i>51.76</i> |
| 15SRB2 | 1.54 <i>39.12</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.58 <i>40.00</i> | 2.04 <i>51.76</i> |
| 15SRBP | 1.54 <i>39.12</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.58 <i>40.00</i> | 2.04 <i>21.76</i> |
| 15SRBS1 | 1.75 <i>44.45</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.19 <i>30.10</i> | 1.41 <i>35.81</i> |
| 15SRB8 | 0.95 <i>24.13</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.58 <i>40.00</i> | 2.04 <i>51.76</i> |
| 15SRBS8 | .95 <i>24.13</i> | 1.13 <i>28.70</i> | 0.96 <i>24.38</i> | 1.19 <i>30.10</i> | 1.41 <i>35.81</i> |
| 15SRBX8 | 0.95 <i>24.1</i> | 1.11 <i>28.2</i> | 0.89 <i>22.61</i> | 1.35* <i>34.29*</i> | 1.41 <i>35.81</i> |
| 15SRBY8 | 0.95 <i>24.1</i> | 1.11 <i>28.2</i> | 0.89 <i>22.61</i> | 1.30* <i>33.02*</i> | 1.36 <i>34.54</i> |

*max.

Minimum Depth, Cost-effective Shielded Power Inlet Filter *(continued)*

SRB Series

Recommended Panel Cutouts

SRB1, SRB2, SRBP & SRB8



Tolerances $\pm .005$ [0.13] unless otherwise noted
 Note 1: SRB1 and SRB8 can be front or back mounted
 Note 2: SRB2 and SRBP can be back mounted only

SRBS



| Panel Thickness | G Dim. $\pm .002$ [.05] |
|-----------------------------|-------------------------|
| 0.031 - 0.052 [0.79 - 1.32] | 1.260 [32.00] |
| 0.046 - 0.068 [1.17 - 1.73] | 1.350 [34.29] |

SRBX



SRBY



PC Board Layout



SRBX8

Minimum Depth, Cost-effective Shielded Power Inlet Filter *(continued)*

SRB Series

Performance Data

Typical Insertion Loss

Measured in closed 50 Ohm system



Minimum Insertion Loss

Measured in closed 50 Ohm system

Common Mode / Asymmetrical (Line to Ground)

| Current Rating | Frequency – MHz | | | | | |
|----------------|-----------------|----|----|----|-----|-----|
| | 1 | 5 | 10 | 50 | 100 | 300 |
| Q | - | - | - | - | - | 20 |
| R | - | - | - | 3 | 6 | 22 |
| S | - | - | 1 | 6 | 17 | 19 |
| T | - | - | 2 | 13 | 13 | 19 |
| W | - | 2 | 4 | 18 | 13 | 20 |
| X | - | 5 | 9 | 25 | 10 | 17 |
| Y | 1 | 10 | 15 | 20 | 8 | 22 |
| Z | 2 | 14 | 18 | 17 | 7 | 15 |