CBS 10 & 20 Series
Shield heights from .130”

10 - CBS Series

<table>
<thead>
<tr>
<th>STYLE</th>
<th>FIG.</th>
<th>A HEIGHT</th>
<th>B PIN SPACING</th>
<th>C STANDOFFS</th>
<th>D PIN LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-CBS</td>
<td>1</td>
<td>.13 (.33)</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>14-CBS</td>
<td>5</td>
<td>.13 (.33)</td>
<td>1.0 (.254)</td>
<td>none</td>
<td>.05 (.13)</td>
</tr>
<tr>
<td>14R-CBS</td>
<td>3</td>
<td>.13 (.33)</td>
<td>.50 (.127)</td>
<td>none</td>
<td>.10 (.254)</td>
</tr>
<tr>
<td>14RH-CBS</td>
<td>3</td>
<td>.13 (.33)</td>
<td>.50 (.127)</td>
<td>none</td>
<td>.05 (.13)</td>
</tr>
<tr>
<td>16-CBS</td>
<td>3</td>
<td>.13 (.33)</td>
<td>.50 (.127)</td>
<td>none</td>
<td>.13 (.33)</td>
</tr>
</tbody>
</table>

Available Heights:
10 SERIES -.13” TO 2.0” (3.3 TO 50.8)    20 SERIES -.20” TO 2.0” (5.08 TO 50.8)

Recommended hole size: .050” (1.27)

Single density and double density ventilation holes available upon request.
SV/DV (Standard) = .156” dia.  SV2  /DV2 (Alternate) = .08” dia.

Ventilation Patterns

10 and 20 Series Specs
Sizes: .50” x .50” to 12” x 24” (.25” increments)
Shapes: Squares, rectangles and odd shapes in .25” increments
Heights: .13” to 2.00”
Mounting Pins: .50” or 1.00” spacing
Surface Mount: Available for all 10 and 20 series CBS
Std Material: .015” (.38) pre-tin plated steel
Cover Retention: 1.5 - 2.5 lb./linear inch
Shielding Effectiveness: up to 60 dB

Standard Options
• Formed fence and cover - unassembled (F)
• Assembled fence and cover (A)
• Flat fence and formed cover (U)
• Pre-tin plated Phos Bronze (P), Alloy 770 (N)
• Ventilation holes (SV 15% or DV 30%)

Ordering a CBS is Easy
1. Select your style number - “21-CBS”
2. Choose standard options listed above - “21-CBS-FNSV”
3. Specify your width in .25” increments from .50” to 12.00” - “21-CBSFNSV-2.5x4.5”
4. Specify your length in .25” increments from .50” to 24.00” - “21-CBSFNSV-2.5x4.5”
5. Specify your height from board to inside cover from .13” to 2.00” - “21-CBSFNSV-2.5x4.5x225”

Mounting Hole Patterns (10 and 20 series)

Order Toll-Free 866.TECH.EMI (866.832.4364)  Web LeaderTechInc.com
The Leading Edge in EMI Shielding Technology

NOTES
• Drawings in figures 1-6 are not to scale; see chart for sizing
• Standard material .015” (.38) pre-tin plated steel
• Other cover heights available; consult factory
• Standard cover height: .115” (.29) 10-CBS
• .185” (.47) 20-CBS

Black = inches   Red = mm

Order Toll-Free 866.TECH.EMI (866.832.4364)  Web LeaderTechInc.com
The Leading Edge in EMI Shielding Technology
### 40-CBS Series

**Black = inches  Red = mm**

<table>
<thead>
<tr>
<th>STYLE</th>
<th>FIG.</th>
<th>A HEIGHT</th>
<th>B PIN SPACING</th>
<th>C STANDOFFS</th>
<th>D PIN LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-CBS</td>
<td>1</td>
<td>.40</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>42-CBS</td>
<td>3</td>
<td>.40</td>
<td>1.00</td>
<td>.25</td>
<td>none</td>
</tr>
<tr>
<td>44-CBS</td>
<td>2</td>
<td>.40</td>
<td>.50</td>
<td>none</td>
<td>.12</td>
</tr>
<tr>
<td>45-CBS</td>
<td>4</td>
<td>.40</td>
<td>1.00</td>
<td>.25</td>
<td>.12</td>
</tr>
<tr>
<td>47-CBS</td>
<td>4</td>
<td>.40</td>
<td>1.00</td>
<td>.25</td>
<td>.15</td>
</tr>
<tr>
<td>48-CBS</td>
<td>2</td>
<td>.40</td>
<td>.25</td>
<td>none</td>
<td>.12</td>
</tr>
<tr>
<td>49-CBS</td>
<td>5</td>
<td>.40</td>
<td>.25</td>
<td>.010</td>
<td>.15</td>
</tr>
<tr>
<td>49L-CBS</td>
<td>6</td>
<td>.40</td>
<td>.25</td>
<td>.005</td>
<td>.12</td>
</tr>
</tbody>
</table>

**NOTES**
- Drawings in figures 1-6 are not to scale; see chart for sizing.
- Standard cover height: .280" (7.11) 40-CBS
- Other cover heights available, consult factory.

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**Ventilation Patterns**

Single density and double density ventilation holes available upon request.

<table>
<thead>
<tr>
<th>SV PATTERN</th>
<th>.156&quot; HOLE</th>
<th>DV PATTERN</th>
<th>.156&quot; HOLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>.50&quot; TYP</td>
<td>.040</td>
<td>.50&quot; TYP</td>
<td>.040</td>
</tr>
</tbody>
</table>

**Mounting Hole Patterns (40 series)**

- **.25" Pin Pattern**
- **.50" Pin Pattern**
- **1.0" Pin Pattern**

Pin pattern viewed from top of shield. Consult factory for pin patterns for your application.

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**CBS 40 Series Configuration**

**CBS 40 Series**

**40 Series Specs**
- Sizes: .55" x .55" to 12" x 24" (.25" increments)
- Shapes: Squares, rectangles and odd shapes in .25" increments
- Heights: .40" to 3.00"
- Mounting Pins: .25", .50" or 1.00" spacing
- Surface Mount: Available for all 40 series CBS
- Std Material: .015" (.38) pre-tin plated steel
- Cover Retention: 1.5 - 2.5 lb/linear inch
- Shielding Effectiveness: up to 60 dB

**Standard Options**
- Formed fence and cover - unassembled (F)
- Assembled fence and cover (A)
- Flat fence and formed cover (U)
- Pre-tin plated Plus Bronze (P), Alloy 770 (N)
- Ventilation holes (SV 15% or DV 30%)
- Dimples for improved retention (D)

**Ordering a CBS is Easy**
1. Select your style number - "42-CBS"
2. Choose standard options listed above - "42-CBSNSV"
3. Specify your width in .25" increments from .50" to 12.00" - "42-CBSNSV-.5" to "42-CBSNSV-2.5"
4. Specify your length in .25" increments from .50" to 24.00" - "42-CBSNSV-.5" to "42-CBSNSV-2.5x4.5"
5. Specify your height from board to inside cover from .40" to 3.00" - "42-CBSNSV-.5x4.5x .40"

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**Notes**

- Drawings in figures 1-6 are not to scale; see chart for sizing.
- Standard cover height: .280" (7.11) 40-CBS
- Other cover heights available, consult factory.
### 50 Series CBS Specifications

**Sizes:** .50” x .50” to 12” x 24” (.25” increments)

**Shapes:** Squares, Rectangles and Odd Shapes in .25” increments

**Heights:** .50” to 3.00”

**Mounting Pins:** .25”, .50” or 1.00” spacing

**Surface Mount:** Available for all 50 series CBS

**Std Material:** .015” (.38) pre-tin plated steel

**Cover Retention:** 1.5 - 2.5 lb./linear inch

**Shielding Effectiveness:** up to 60 dB

### Standard Options

- Formed fence and cover - unassembled (F)
- Assembled fence and cover (A)
- Flat fence and formed cover (U)
- Pre-tin plated Phos Bronze (P), Alloy 770 (N)
- Ventilation holes (SV 15% or DV 30%)
- Dimples for improved retention (D)

### Ordering a CBS is Easy

1. Select your style number - “51-CBS”
2. Choose standard options listed above - .51-CBSFNSV.
3. Specify your width in .25” increments from .50” to 12.00” - “51-CBSFNSV-2.5x4.5”
4. Specify your length in .25” increments from .50” to 24.00” - “51-CBSFNSV-2.5x4.5”
5. Specify your height from board to inside cover from .50” to 2.00” - “51-CBSFNSV-2.5x4.5x50”
<table>
<thead>
<tr>
<th>STYLE</th>
<th>FIG.</th>
<th>A HEIGHT</th>
<th>B PIN SPACING</th>
<th>C STANDOFFS</th>
<th>D PIN LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-CBS</td>
<td>1</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>81-CBS</td>
<td>2</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>82-CBS</td>
<td>3</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>83-CBS</td>
<td>4</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>84-CBS</td>
<td>5</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>85-CBS</td>
<td>6</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>86-CBS</td>
<td>7</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>87-CBS</td>
<td>8</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>88-CBS</td>
<td>9</td>
<td>.80</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>89-CBS</td>
<td>10</td>
<td>.80</td>
<td>.25</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

**NOTES**
- Drawings in figures 1-8 are not to scale; see chart for sizing.
- Standard cover height: 2.00" (.50) 80-CBS Series.
- Other cover heights available, consult factory.

**CBS 80 Series Configuration**

**Ventilation Patterns**

**Mounting Hole Patterns (60 series)**

**Ordering a CBS is Easy**

1. Select your style number - "81-CBS".
2. Choose standard options listed above - "81-CBS-NF".
3. Specify your width in .25" increments from .50" to 12.00" - "81-CBS-NF-SV-2.5" or "81-CBS-NF-DV-2.5".
4. Specify your length in .25" increments from .50" to 24.00" - "81-CBS-NF-SV-2.5x4.5" or "81-CBS-NF-DV-2.5x4.5".
5. Specify your height from board to inside cover from .80" to 2.00" - "81-CBS-NF-SV-2.5x4.5x80".
Engineered 6-sided Shield Enclosure

The versatile 6-sided CBS2 Shielding Box can be mounted on any side or orientation. We recommend the use of GRIP-SERT style threaded inserts. These inserts are completely threaded, enabling them to be utilized both as a method of exterior box attachment and for PCB attachment inside of the shielding box. This allows the use of CBS2 shielding boxes in a wide variety of unique mounting applications.

These highly versatile inserts deliver high torque-out resistance and high pull-out values in our standard .015” pre-tin plated steel or pre-tin plated Phos Bronze (P).

Design

The Leader Tech CBS2 consists of the following:
- (1) fence using proven cover retention fingers on both sides
- (2) covers with height and features to be specified

<table>
<thead>
<tr>
<th>CBS2 Series</th>
<th>Black = inches</th>
<th>Red = mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>STYLE</td>
<td>FIG.</td>
<td>A HEIGHT</td>
</tr>
<tr>
<td>CBS2</td>
<td>1</td>
<td>.800 (20.32)</td>
</tr>
</tbody>
</table>

NOTES: Drawing in Figure 1 is not to scale; see chart for sizing

FIGURE 1
CBS2: Specific packaging heights and relative PCB locations are obtained by adjusting individual cover heights.

CBS2 Series Specs
Material Options
- Pre-tin plated steel
- Pre-tin plated Phos Bronze (P)
- Mu metal
- Alloy 770

Shapes
- Square
- Rectangle
- L-shape
- T-shape

Optional Features
- I/O cutouts
- Mounting hardware for PCB
- Ventilation holes
- Locking dimples

Order Toll-Free **866.TECH.EMI (866.832.4364)**  Web LeaderTechInc.com