PACKAGING

- Chips
- Axial Leads
- Radial Leads
Paper Carrier Configuration

8mm Tape Only

8mm Paper Tape
Metric Dimensions Will Govern

CONANT DIMENSIONS

<table>
<thead>
<tr>
<th>Tape Size</th>
<th>D₀</th>
<th>E</th>
<th>P₀</th>
<th>P₂</th>
<th>T₁</th>
<th>G. Min.</th>
<th>R. Min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8mm</td>
<td>1.50 ± 0.10 (0.059 ± 0.004)</td>
<td>1.75 ± 0.10 (0.069 ± 0.004)</td>
<td>4.00 ± 0.10 (0.157 ± 0.004)</td>
<td>2.00 ± 0.05 (0.079 ± 0.002)</td>
<td>0.10 (0.004) Max.</td>
<td>0.75 (0.030) Min.</td>
<td>25.0 (0.984) See Note 2 Min.</td>
</tr>
</tbody>
</table>

VARIABLE DIMENSIONS

<table>
<thead>
<tr>
<th>Tape Size</th>
<th>P₁</th>
<th>See Note 4</th>
<th>E₂ Min.</th>
<th>F</th>
<th>W</th>
<th>A₀ B₀</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>8mm</td>
<td>4.00 ± 0.10 (0.157 ± 0.004)</td>
<td>6.25 (0.246)</td>
<td>3.50 ± 0.05 (0.138 ± 0.002)</td>
<td>8.00 ± 0.10 (0.315 ± 0.004)</td>
<td>See Note 1</td>
<td>1.10mm (0.043) Max. for Paper Base Tape and</td>
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NOTES:
1. The cavity defined by A₀, B₀, and T shall be configured to provide sufficient clearance surrounding the component so that:
   a) the component does not protrude beyond either surface of the carrier tape;
   b) the component can be removed from the cavity in a vertical direction without mechanical restriction after the top cover tape has been removed;
   c) rotation of the component is limited to 20° maximum (see Sketches A & B);
   d) lateral movement of the component is restricted to 0.5mm maximum (see Sketch C).
2. Tape with or without components shall pass around radius “R” without damage.
3. Bar code labeling (if required) shall be on the side of the reel opposite the sprocket holes. Refer to EIA-556.
4. If P₁ = 2.0mm, the tape may not properly index in all tape feeders.

Bar Code Labeling Standard
AVX bar code labeling is available and follows latest version of EIA-556
8 & 12mm Embossed Tape Metric Dimensions Will Govern

### CONSTANT DIMENSIONS

<table>
<thead>
<tr>
<th>Tape Size</th>
<th>(D_0)</th>
<th>(E)</th>
<th>(P_0)</th>
<th>(P_2)</th>
<th>(S_{\text{Min.}})</th>
<th>(T_{\text{Max.}})</th>
<th>(T_1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8mm and 12mm</td>
<td>(1.50 \pm 0.10) (0.059 ± 0.004)</td>
<td>(1.75 \pm 0.10) (0.069 ± 0.004)</td>
<td>(4.0 \pm 0.10) (0.157 ± 0.004)</td>
<td>(2.0 \pm 0.05) (0.079 ± 0.002)</td>
<td>(0.60) (0.024)</td>
<td>(0.60) (0.024)</td>
<td>(0.10) (0.004)</td>
</tr>
</tbody>
</table>

### VARIABLE DIMENSIONS

<table>
<thead>
<tr>
<th>Tape Size</th>
<th>(B_1)</th>
<th>(D_1)</th>
<th>(E_2)</th>
<th>(F)</th>
<th>(P_1)</th>
<th>(R_{\text{Min.}})</th>
<th>(T_2)</th>
<th>(W_{\text{Max.}})</th>
<th>(A_0\ B_1\ K_0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8mm</td>
<td>(4.35) (0.171)</td>
<td>(1.00) (0.039)</td>
<td>(6.25) (0.246)</td>
<td>(3.50 \pm 0.05) (0.138 ± 0.002)</td>
<td>(4.00 \pm 0.10) (0.157 ± 0.004)</td>
<td>(25.0) (0.984)</td>
<td>(2.50) Max. (0.098)</td>
<td>(8.30) (0.327)</td>
<td>See Note 1</td>
</tr>
<tr>
<td>12mm</td>
<td>(8.20) (0.323)</td>
<td>(1.50) (0.059)</td>
<td>(10.25) (0.404)</td>
<td>(5.50 \pm 0.05) (0.217 ± 0.002)</td>
<td>(4.00 \pm 0.10) (0.157 ± 0.004)</td>
<td>(30.0) (1.181)</td>
<td>(6.50) Max. (0.256)</td>
<td>(12.3) (0.484)</td>
<td>See Note 1</td>
</tr>
</tbody>
</table>

**NOTES:**

1. The cavity defined by \(A_0\), \(B_0\), and \(K_0\) shall be configured to provide the following:
   - a) the component does not protrude beyond the sealing plane of the cover tape.
   - b) the component can be removed from the cavity in a vertical direction without mechanical restriction, after the cover tape has been removed.
   - c) rotation of the component is limited to 20° maximum (see Sketches D & E).
   - d) lateral movement of the component is restricted to 0.5mm maximum (see Sketch F).

2. Tape with or without components shall pass around radius "R" without damage.

3. Bar code labeling (if required) shall be on the side of the reel opposite the round sprocket holes. Refer to EIA-556.

4. \(B_1\) dimension is a reference dimension for tape feeder clearance only.

5. If \(P_1 = 2.0\)mm, the tape may not properly index in all tape feeders.

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**Top View, Sketch "F"**

Component Lateral Movements

0.50mm (0.020) Maximum

**Top View, Sketch "D"**

0.50mm (0.020) Maximum

Maximum Component Rotation

Side or Front Sectional View

Sketch "C"
### REEL DIMENSIONS

*T Drive spokes optional, if used asterisked dimensions apply.

Tape Slot in Core For Tape Start. 2.50 (0.098) min. Width, 10.0 (0.394) min. Depth

* Metric dimensions will govern.  
English measurements rounded and for reference only.

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</tr>
</thead>
<tbody>
<tr>
<td>8mm</td>
<td>330 (12.992)</td>
<td>1.5 (0.059)</td>
<td>13.0 +1/8 (0.512)</td>
<td>20.2 (0.795)</td>
<td>50.0 (1.969)</td>
<td>8.40 +1/8 (0.331)</td>
<td>14.4 (0.567)</td>
<td>7.90 Min. (0.311) 10.9 Max. (0.429)</td>
</tr>
<tr>
<td>12mm</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>12.4 +1/8 (0.488)</td>
</tr>
</tbody>
</table>

Note: Tape with or without components shall pass around radius "R" without damage.
**CLASS I / RS-296**

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>A.</td>
<td>5mm ± 0.5mm (0.200” ± 0.020”)</td>
</tr>
<tr>
<td>B*</td>
<td>52.4mm ± 1.5mm (2.063” ± 0.059”)</td>
</tr>
<tr>
<td>C.</td>
<td>6.35mm ± 0.4mm (0.250” ± 0.016”)</td>
</tr>
<tr>
<td>D1-D2</td>
<td>1.4mm (0.055” MAX.)</td>
</tr>
<tr>
<td>E.</td>
<td>1.2mm (0.047” MAX.)</td>
</tr>
<tr>
<td>F.</td>
<td>1.6mm (0.063” MAX.)</td>
</tr>
<tr>
<td>G.</td>
<td>356mm (14.00” MAX.)</td>
</tr>
<tr>
<td>H.</td>
<td>76mm (3.000”)</td>
</tr>
<tr>
<td>I.</td>
<td>25.4mm (1.000”)</td>
</tr>
<tr>
<td>J.</td>
<td>84mm (3.300”)</td>
</tr>
<tr>
<td>K.</td>
<td>70mm (2.750”)</td>
</tr>
</tbody>
</table>

**Leader Tape:** 300mm min. (12”)
**Splicing:** Tape Only
**Missing Parts:** 0.25% of component count max.- No consecutive missing parts
**REEL DIRECTION**

Leads on top of carrier strip, body away

Unreel from LEFT to RIGHT OVER TOP of reel

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**QUANTITY PER REEL**

<table>
<thead>
<tr>
<th>PART</th>
<th>PCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VR15, VR20</td>
<td>3000</td>
</tr>
<tr>
<td>CG20, CG21</td>
<td></td>
</tr>
</tbody>
</table>

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**DESCRIPTION**

A. Feed Hole Pitch
B. Feed Hole Diameter
C. Feed Hole Location
D. Component Lead Spacing
E. Component Lead Location
F. Component Lead Protrusion (edge of carrier to cut end of lead)
K. Component Body Location
L. Carrier Tape Width
M. Carrier Tape Assembly Thickness
N. Carrier Tape Spliced Thickness
O. Carrier Tape Spliced Length
Q. Adhesive Tape Border
R. Component Bent Leads (either direction)
S. Component Misalignment
T. Component Pitch
W. Adhesive Tape Width
X. Carrier Tape Thickness
Y. Cumulative Pitch over 20 Pitches

**DIMENSIONS (MM)**

- A: 12.70 ± 0.20
- B: 3.99 ± 0.20
- C: 9.02 ± 0.51
- D: 5.00 ± 0.25 or 2.54 ± 0.20
- E: 3.81 ± 0.51 or 5.00 ± 0.51
- F: 2.00 maximum
- K: 6.35 ± 0.41
- L: 18.01 ± 1.02
- M: 1.42 maximum
- N: 50.80 - 88.90
- O: 3.00 maximum
- Q: 0.79 maximum
- S: 0.99 maximum
- T: 12.70 ± 0.99
- W: 6.35 ± 0.41
- X: 18.01 ± 1.02
- Y: 0.79 ± 0.20

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**DESCRIPTION**

A – Reel Diameter
B – Reel Outside Width
C – Reel Inside Width
D – Core Diameter (O.D.)
E – Hub Recess Diameter
F – Hub Recess Depth
G – Arbor Hole Diameter

**DIMENSIONS (MM)**

- A: 304.80 - 355
- B: 50.80 maximum
- C: 38.10 - 46.02
- D: 102.01 maximum
- E: 86.36 maximum
- F: 9.50 minimum
- G: 25.40 - 30.48