Low-Profile High-Deflection Mounts

Low-profile, high-deflection mounts are general purpose isolators for applications in ground vehicles or transit cases where high amplitude vibration and shock loading is expected. Low-profile, high-deflection mounts are resistant to a wide range of environmental conditions and are ideally suited for the isolation of electronic equipment in off-road and heavy duty service.

Features:

- Lightweight, low-profile design
- Efficiently isolates vibration in all directions
- 2:1 Axial to Radial spring rate
- Survives 30G 11ms ½ sine shock input at rated load

Low-profile, high-deflection mounts are available in three sizes:

- 2805 size: 5 load ratings from 2.5 to 10 lb
- 2806 size: 3 load ratings from 2 to 10 lb

Applicable Military Specifications:

- MIL-STD-810
GREENE RUBBER COMPANY

Solutions for shock, vibration, noise, and sealing challenges

VIB2805

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 2.5 – 10 lb
Axial-Radial Stiffness Ratio: 2:1
Part Weight: 0.2 oz.
Materials:
Core and Base Plate: Aluminum alloy 6061-T6
Elastomer: Neoprene

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Color Code</th>
<th>Max. Static Load (Axial)</th>
<th>Max. Static Load (Radial)</th>
<th>Axial Natural Frequency</th>
<th>Dynamic Axial Spring Rate</th>
<th>Dynamic Radial Spring Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIB2805-1</td>
<td>Blue</td>
<td>2.50</td>
<td>1.40</td>
<td>14</td>
<td>50</td>
<td>9</td>
</tr>
<tr>
<td>VIB2805-2</td>
<td>Red</td>
<td>3.75</td>
<td>1.90</td>
<td></td>
<td>75</td>
<td>14</td>
</tr>
<tr>
<td>VIB2805-3</td>
<td>Green</td>
<td>4.25</td>
<td>2.75</td>
<td>16</td>
<td>111</td>
<td>20</td>
</tr>
<tr>
<td>VIB2805-4</td>
<td>Yellow</td>
<td>6.50</td>
<td>3.75</td>
<td></td>
<td>170</td>
<td>31</td>
</tr>
<tr>
<td>VIB2805-5</td>
<td>White</td>
<td>10.0</td>
<td>6.25</td>
<td></td>
<td>261</td>
<td>47</td>
</tr>
</tbody>
</table>

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

\[ F_n = F_{nn} \times \sqrt{\frac{P_r}{P_a}} \]

Where:
\( F_n \): Natural Frequency at actual load (Hz)
\( F_{nn} \): Nominal Natural Frequency (Hz)
\( P_r \): Rated load

Performance Characteristics

0 0.05 0.1 0.15 0.2 0.25 0.3
Load (lbs)
Deflection (inch)
-5 -4 -3 -2 -1

0.05 0.1 0.15 0.2 0.25 0.3
Deflection (inch)
Solutions for shock, vibration, noise, and sealing challenges

GREENE RUBBER COMPANY

VIB2806

PRODUCT SPECIFICATIONS

Operating Temperature: -20 to +180 F
Maximum Transmissibility at Resonance: 10.0
Load Capacity: 2 – 10 lb
Axial-Radial Stiffness Ratio: 2:1
Part Weight: 0.5 oz.
Materials:
  Core and Base Plate: Aluminum alloy 6061-T6
  Elastomer: Neoprene

Performance Characteristics

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Color Code</th>
<th>Max. Static Load (Axial)</th>
<th>Max. Static Load (Radial)</th>
<th>Axial Natural Frequency</th>
<th>Dynamic Axial Spring Rate</th>
<th>Dynamic Radial Spring Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIB2806-1</td>
<td>Blue</td>
<td>2.0 Lbs</td>
<td>0.75 Lbs</td>
<td>12 Hz</td>
<td>29 lb/in, 5 lb/mm</td>
<td>15 lb/in, 3 lb/mm</td>
</tr>
<tr>
<td>VIB2806-2</td>
<td>Red</td>
<td>3.0 Lbs</td>
<td>1.50 Lbs</td>
<td></td>
<td>44 lb/in, 8 lb/mm</td>
<td>22 lb/in, 4 lb/mm</td>
</tr>
<tr>
<td>VIB2806-3</td>
<td>Green</td>
<td>5.0 Lbs</td>
<td>2.25 Lbs</td>
<td></td>
<td>73 lb/in, 13 lb/mm</td>
<td>37 lb/in, 7 lb/mm</td>
</tr>
<tr>
<td>VIB2806-4</td>
<td>Yellow</td>
<td>7.5 Lbs</td>
<td>4.0 Lbs</td>
<td></td>
<td>110 lb/in, 20 lb/mm</td>
<td>55 lb/in, 10 lb/mm</td>
</tr>
<tr>
<td>VIB2806-5</td>
<td>White</td>
<td>10.0 Lbs</td>
<td>5.5 Lbs</td>
<td></td>
<td>147 lb/in, 27 lb/mm</td>
<td>74 lb/in, 14 lb/mm</td>
</tr>
</tbody>
</table>

*Fn at max rated load and .036 inch DA input
To correct for loads lower than rated load use:

\[ F_n = F_{in} \times \sqrt{P_r/P_a} \]

Where:

- \( F_n \): Natural Frequency at actual load (Hz)
- \( F_{in} \): Nominal Natural Frequency (Hz)
- \( P_r \): Rated load
- \( P_a \): Actual load

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