Planar Beam Lead PIN Diode

Features
- Single / Common-Anode Configurations
- 4 Gram Minimum Lead Pull
- Oxide / Nitride / Polyimide Triple Passivation for High Reliability

Description
The planar beam lead PIN diodes provide low microwave capacitance with exceptional lead strength. The high beam strength offers the users superior assembly yield. The oxide / nitride / polyimide passivation offers high reliability with low reverse leakage current and high temperature performance.

Electrical Specifications¹:  \( T_A = +25 \degree C \)

<table>
<thead>
<tr>
<th>Part #</th>
<th>Configuration</th>
<th>Reverse Current ((I_R)) ( V_R = 30 , V )</th>
<th>Breakdown Voltage ((V_{BR})) ( I_R = 10 , \mu A )</th>
<th>Junction Capacitance ((C_J)) ( V_R = 10 , V, 15 , GHz )</th>
<th>Series Resistance ((R_S)) ( I_F = 20 , mA, 3 , GHz )</th>
<th>Lifetime ((t))</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPND4005-B15</td>
<td>Single Common Anode</td>
<td>100 nA</td>
<td>100 V</td>
<td>0.02 ( pF )</td>
<td>6.5 ( \Omega )</td>
<td>125 ns</td>
</tr>
<tr>
<td>MPND4005-B16</td>
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</tbody>
</table>

1. All devices available in a variety of packages. Consult factory for special version, high reliability screening or custom designs.

Absolute Maximum Ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Absolute Maximum</th>
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</thead>
<tbody>
<tr>
<td>Total Power Dissipation</td>
<td>250 mW @ 25\degree C, Derate linearly to 0 @ +175\degree C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-65\degree C to +175\degree C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-65\degree C to +200\degree C</td>
</tr>
<tr>
<td>Terminal Strength</td>
<td>4 grams minimum</td>
</tr>
</tbody>
</table>
Typical Performance Curves

**Isolation vs. Frequency**

- Isolation in dB vs. Frequency (GHz)
  - 0 Volts
  - 50 mA, 20 mA, 10 mA

**Forward Resistance vs. Current**

- Forward Resistance (Ohms) vs. Current (mA)

Outlines

**B15**

- Dimensions in mils [mm]

**B16**

- Dimensions in mils [mm]
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