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 Specifications\(^1\): \(T_A = +25°C\)

<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) µA</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</td>
<td>100</td>
<td>0.02</td>
<td>6.5</td>
<td>125</td>
</tr>
<tr>
<td>MPND4005-B16</td>
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</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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<tbody>
<tr>
<td>Total Power Dissipation</td>
<td>250 mW @ 25°C, Derate linearly to 0 @ +175°C</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-65°C to +175°C</td>
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<tr>
<td>Storage Temperature</td>
<td>-65°C to +200°C</td>
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<tr>
<td>Terminal Strength</td>
<td>4 grams minimum</td>
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</table>
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Typical Performance Curves

Isolation vs. Frequency

Forward Resistance vs. Current

Outlines

B15

Dimensions in mils [mm]

B16

Dimensions in mils [mm]
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