**Features**
- Singles Basing Voltage (Self Biased)
- Operating Frequency: 2-20GHz
- Noise Figure: 1.5dB
- Gain: 23dB
- P1dB: +16.5dBm
- Self Biasing +5V @ 65 mA
- Input/Output: 50Ω matched
- Die Size: 1.5 x 0.8 x 0.1 mm

**Typical Applications**
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

**Electrical Specifications**
TA = +25°C, Vdd = +5V, Idd = 65mA

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<td>6-12</td>
<td>12-20</td>
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<td>Output Third Order Intercept (IP3)</td>
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MM323H GaAs pHEMT MMIC
2.7 – 3.5 GHz

MML097 GaAs pHEMT MMIC
Low Noise Amplifier
2-20GHz

Gain

Return Loss & Reverse Isolation

Noise Figure

Output Power $P_{1}$

Psat

OIP3

Psat

OIP3
### Pad Description

<table>
<thead>
<tr>
<th>PAD</th>
<th>Function</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>IN</td>
<td>This pad is AC coupling, 50 ohm matched</td>
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<tr>
<td>2</td>
<td>VD</td>
<td>This pad provides the power supply voltage of the amplifier and needs to be externally connected with the 100pF bypass capacitor.</td>
</tr>
<tr>
<td>3</td>
<td>OUT</td>
<td>This pad is AC coupling, 50 ohm matched</td>
</tr>
<tr>
<td>Die Bottom</td>
<td>GND</td>
<td>Die bottom must be connected to RF/DC ground.</td>
</tr>
</tbody>
</table>
Notes:
1. Die thickness: 100um  
2. Typical bond pad is 100*100 μm²  
3. Bond pad metalization: Gold  
4. Backside metalization: Gold  
5. Backside of the die (GND)  
6. No connection required for unlabeled bond pads

Maximum Ratings:
1. Power supply voltage: +6V  
2. RF input power: +18dBm  
3. Storage temperature: -65°C to +150°C  
4. Operating temperature: -55°C to +85°C