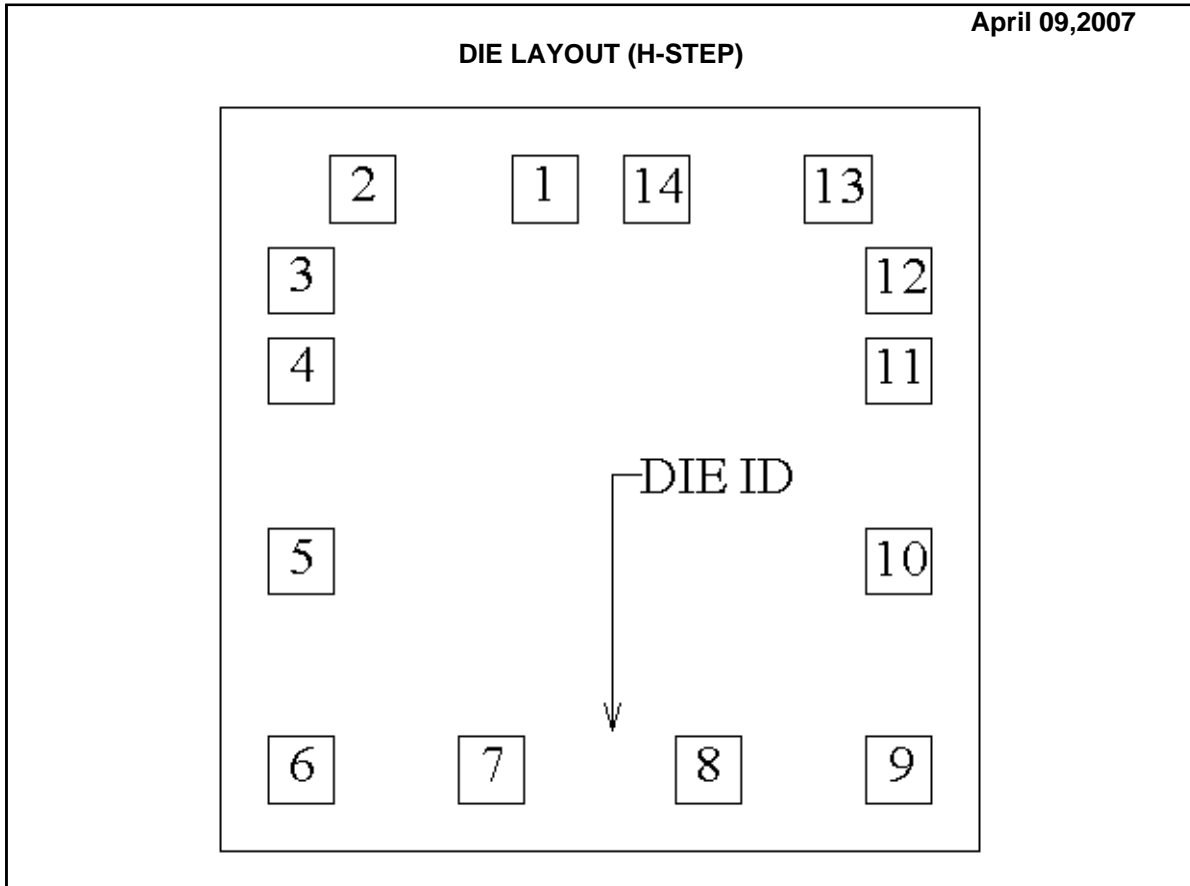


**LM139 MDS MCD2390A**  
**LOW POWER LOW OFFSET VOLTAGE QUAD COMPARATOR**



**DIE/WAFER CHARACTERISTICS**

| Fabrication Attributes      |  | General Die Information     |                         |
|-----------------------------|--|-----------------------------|-------------------------|
| Physical Die Identification | 1901H  | Bond Pad Opening Size (min) | 92 $\mu$ m x 92 $\mu$ m |
| Die Step                    | H  | Bond Pad Metalization       | ALUMINUM                |
| Physical Attributes         |  | Passivation                 | VAPOX                   |
| Wafer Diameter              | 150mm  | Back Side Metal             | BARE BACK               |
| Die Size (Drawn)            | 1067 $\mu$ m x 1041 $\mu$ m<br>42.0mils x 41.0mils | Back Side Connection        | Floating or GND         |
| Thickness                   | 406 $\mu$ m +/- 50.8 $\mu$ m                       |                             |                         |
| Min Pitch                   | 127 $\mu$ m Nominal                                |                             |                         |

**Special Assembly Requirements:**

**Note: Actual die size is rounded to the nearest micron.**

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| Die Bond Pad Coordinate Locations (H-Step)  |        |                 |      |    |          |    |
|---|--------|-----------------|------|----|----------|----|
| (Referenced to die center, coordinates in $\mu\text{m}$ ) <b>NC</b> = No Connection, <b>N.U.</b> = Not Used |        |                 |      |    |          |    |
| SIGNAL  | PAD#   | X/Y COORDINATES |      |    | PAD SIZE |    |
| NAME  | NUMBER | X               | Y    | X  | Y        |    |
| Output 2  | 1      | -77             | 407  | 92 | x        | 92 |
| Output 1  | 2      | -333            | 407  | 92 | x        | 92 |
| V+  | 3      | -420            | 280  | 92 | x        | 92 |
| -Input 1  | 4      | -420            | 153  | 92 | x        | 92 |
| +Input 1  | 5      | -420            | -115 | 92 | x        | 92 |
| -Input 2  | 6      | -420            | -407 | 92 | x        | 92 |
| +Input 2  | 7      | -152            | -407 | 92 | x        | 92 |
| -Input 3  | 8      | 152             | -407 | 92 | x        | 92 |
| +Input 3  | 9      | 420             | -407 | 92 | x        | 92 |
| -Input 4  | 10     | 420             | -115 | 92 | x        | 92 |
| +Input 4  | 11     | 420             | 153  | 92 | x        | 92 |
| GND   | 12     | 420             | 280  | 92 | x        | 92 |
| Output 4  | 13     | 334             | 407  | 92 | x        | 92 |
| Output 3  | 14     | 79              | 407  | 92 | x        | 92 |

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|                               |  |
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