

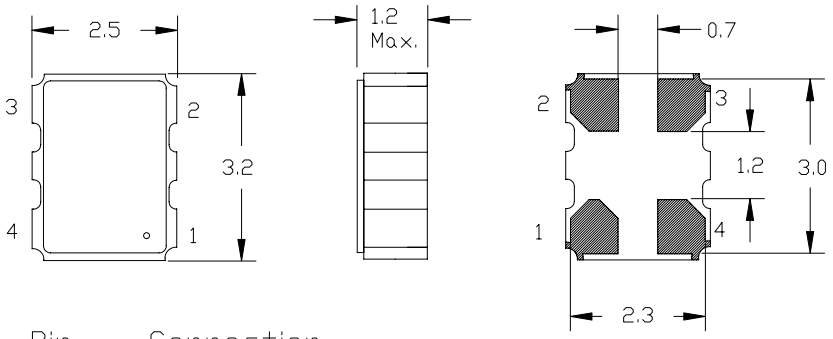


SMD Oscillator, TTL / HC-MOS  
Ceramic Package, 2.5 mm x 3.2 mm

ISM97 Series

|                               |   |  |
|-------------------------------|---|--|
| Frequency                     | 1.000 MHz to 60.000 MHz   |  |
| Output Level                  | TTL   | HC-MOS                                 |
| Level                         | '0' = 0.4 VDC Max., '1' = 2.4 VDC Min.  | '0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min. |
| Duty Cycle                    | Specify 50% ± 10% or ± 5% See Table   |  |
| Rise / Fall Time              | 6 nS Max.   |  |
| Output Load                   | 5 LSTTL   | 15 pF                                  |
| Frequency Stability           | See Frequency Stability Table<br>(Includes room temperature tolerance and stability over operating temperature) |  |
| Start-up Time                 | 10 mS Max.  |  |
| Enable / Disable Time         | 100 nS Max.   |  |
| Supply Voltage                | See Input Voltage Table, tolerance ±5 %   |  |
| Current                       | 30 mA Max. **   |  |
| Temperature                   |   |  |
| Operating                     | See Operating Temperature Table   |  |
| Storage                       | -55° C to +125° C   |  |
| Environmental / Tape and Reel | See Appendix B for Environmental information, Appendix C for Tape and Reel information                          |  |
| Package Information           | MSL = N.A., Termination = e4  |  |

Preliminary Data Sheet  
Advance Information



| Tri-State Function |         |
|--------------------|---------|
| Pin 1 Open         | Enable  |
| Pin 1 ≥ 70% Vdd    | Enable  |
| Pin 1 ≤ 30% Vdd    | Disable |

- Pin Connection
- 1 Enable
  - 2 GND
  - 3 Output
  - 4 Vcc

Dimension Units: mm

| Part Number Guide |               | Sample Part Number: ISM97 - 3251BH - 20.000 |                       |                    |                    |                  |              |
|-------------------|---------------|---|-----------------------|--------------------|--------------------|------------------|--------------|
| Package           | Input Voltage | Operating Temperature                       | Symmetry (Duty Cycle) | Output             | Stability (in ppm) | Enable / Disable | Frequency    |
| ISM97-            | 3 = 3.3 V     | 7 = 0° C to +50° C                          | 5 = 45 / 55 Max.      | 1 = 10 TTL / 15 pF | *A = ±25           | H = Enable       | - 20.000 MHz |
|                   | 7 = 3.0 V     | 1 = 0° C to +70° C                          | 6 = 40 / 60 Max.      | 3 = 15 pF          | B = ±50            |                  |              |
|                   | 2 = 2.7 V     | 3 = -20° C to +70° C                        |                       |                    | C = ±100           |                  |              |
|                   | 6 = 2.5 V     | 2 = -40° C to +85° C                        |                       |                    |                    |                  |              |
|                   | 1 = 1.8 V*    |   |                       |                    |                    |                  |              |

NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 4) and Gnd (pin 2) to minimize power supply noise.  
\* Not available for all temperature ranges. \*\* Frequency, supply, and load related parameters.