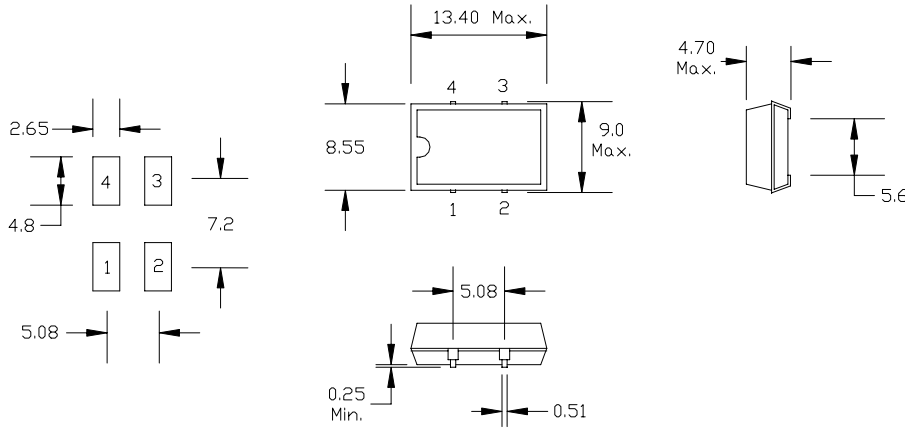




SMD Oscillator, TTL / HC-MOS
Plastic Package, 9 mm x 14 mm

ISM61 Series

| | | |
|--------------------------------------|---|--|
| Frequency | 30 KHz to 200.000 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 | 5 nS Max. @ Vcc = +3.3 VDC, 10 nS Max. @ Vcc = +5.0 VDC ** | |
| Output Load | Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL | See Table |
| Frequency Stability | See Frequency Stability Table (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 | 70 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 = 2a, Termination = e4 | |



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

Dimension Units: mm

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

| Part Number Guide | | Sample Part Number: ISM61 - 3251BH - 20.000 | | | | | |
|-------------------|---------------|---|-----------------------|----------------------------|--------------------|------------------|--------------|
| Package | Input Voltage | Operating Temperature | Symmetry (Duty Cycle) | Output | Stability (in ppm) | Enable / Disable | Frequency |
| ISM61 - | 5 = 5.0 V | 1 = 0° C to +70° C | 5 = 45 / 55 Max. | 1 = 10TTL / 15 pF HC-MOS | *E = ±10 | H = Enable | - 20.000 MHz |
| | 3 = 3.3 V | 6 = -10° C to +70° C | 6 = 40 / 60 Max. | 3 = 15 pF HC-MOS | *D = ±15 | | |
| | 2 = 2.7 V | 3 = -20° C to +70° C | | 6 = 30 pF | F = ±20 | | |
| | 6 = 2.5 V | 4 = -30° C to +75° C | | 5 = 50 pF HC-MOS (<40 MHz) | A = ±25 | | |
| | 1 = 1.8 V* | 2 = -40° C to +85° C | | 4 = AC-MOS | B = ±50 | | |
| | | | | | C = ±100 | | |

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.