

# ME Series

## 14 pin DIP, 5.0 Volt, ECL, PECL, Clock Oscillator



### ME Series ECL/PECL Clock Oscillators, 10 KH Compatible with Optional Complementary Outputs



### Pin Connections

| PIN | FUNCTION(S) (Model Dependent) |
|-----|-------------------------------|
| 1   | N/C, Output #2                |
| 7   | -Vee, Ground                  |
| 8   | Output #1                     |
| 14  | +Vcc                          |

### Ordering Information

| ME                                    | 1 | 3                 | X                               | A                 | D | -R                          | 00.0000 | MHz             |
|---------------------------------------|---|-------------------|---------------------------------|-------------------|---|-----------------------------|---------|-----------------|
| <b>Product Series</b>                 |   |                   |                                 |                   |   |                             |         |                 |
| <b>Temperature Range</b>              |   |                   |                                 |                   |   |                             |         |                 |
| 1: 0°C to +70°C                       |   | 2: -40°C to +85°C |                                 | 5: -10°C to +85°C |   | 6: -20°C to +70°C           |         | 7: 0°C to +85°C |
| <b>Stability</b>                      |   |                   |                                 |                   |   |                             |         |                 |
| 1: ±1000 ppm                          |   | 2: ±500 ppm       |                                 | 3: ±100 ppm       |   | 4: ±50 ppm                  |         | 6: ±25 ppm      |
| *8: ±20 ppm                           |   |                   |                                 |                   |   |                             |         |                 |
| <b>Output Type</b>                    |   |                   |                                 |                   |   |                             |         |                 |
| X: Single Output                      |   |                   | Z: Dual Output                  |                   |   |                             |         |                 |
| <b>Symmetry/Logic Compatibility</b>   |   |                   |                                 |                   |   |                             |         |                 |
| A: 40/60 (std.)                       |   |                   | B: 45/55                        |                   |   |                             |         |                 |
| <b>Package/Lead Configurations</b>    |   |                   |                                 |                   |   |                             |         |                 |
| A: DIP; Gold Flash Header             |   |                   | D: DIP; Nickel Header           |                   |   | G: Gull Wing; Nickel Header |         |                 |
|                                       |   |                   | X: Gull Wing; Gold Flash Header |                   |   |                             |         |                 |
| <b>RoHS Compliance</b>                |   |                   |                                 |                   |   |                             |         |                 |
| Blank: non-RoHS compliant part        |   |                   |                                 |                   |   |                             |         |                 |
| -R: RoHS compliant part               |   |                   |                                 |                   |   |                             |         |                 |
| <b>Frequency (customer specified)</b> |   |                   |                                 |                   |   |                             |         |                 |

\*Contact factory for availability.

|                           | PARAMETER              | Symbol  | Min.  | Typ. | Max.                  | Units  | Condition  |                              |
|---------------------------|------------------------|---|---|------|-----------------------|--------|------------|------------------------------|
| Electrical Specifications | Frequency Range        | F   | 19.44   |      | 155.52                | MHz    |            |                              |
|                           | Frequency Stability    | $\Delta F/F$  | (See Ordering Information)                          |      |                       |        |            |                              |
|                           | Operating Temperature  | T <sub>A</sub>  | (See Ordering Information)                          |      |                       |        |            |                              |
|                           | Storage Temperature    | T <sub>S</sub>  | -55   |      | +125                  | °C     |            |                              |
|                           | Input Voltage          | V <sub>cc</sub>   | 4.75  | 5.0  | 5.25                  | V      |            |                              |
|                           | Input Current          | I <sub>ee</sub> /I <sub>cc</sub>                                      |   | 35   | 60                    | mA     |            |                              |
|                           | Symmetry (Duty Cycle)  |   | (See Ordering Information)                          |      |                       |        |            | V <sub>cc</sub> -1.3 V level |
|                           | Load                   |   | 130 Ω to V <sub>cc</sub> -2V or Thevenin Equivalent |      |                       |        |            | See Note 1                   |
|                           | Rise/Fall Time         | T <sub>r</sub> /T <sub>f</sub>  |   |      | 2.5                   | ns     | See Note 2 |                              |
|                           | Logic "1" Level        | V <sub>oh</sub>   | V <sub>cc</sub> -0.98                               |      |                       | V      |            |                              |
|                           | Logic "0" Level        | V <sub>ol</sub>   |   |      | V <sub>cc</sub> -1.63 | V      |            |                              |
|                           | Cycle to Cycle Jitter  |   |   | 11   | 25                    | ps RMS | 1 Sigma    |                              |
| Environmental             | Mechanical Shock       | Per MIL-STD-202, Method 213, Condition C                              |   |      |                       |        |            |                              |
|                           | Vibration              | Per MIL-STD-202, Method 201 & 204                                     |   |      |                       |        |            |                              |
|                           | Wave Solder Conditions | +260°C for 10 secs. Max.  |   |      |                       |        |            |                              |
|                           | Hermeticity            | Per MIL-STD-202, Method 112 (1 x 10 <sup>-8</sup> atm.cc/s of helium) |   |      |                       |        |            |                              |
|                           | Solderability          | Per EIAJ-STD-002  |   |      |                       |        |            |                              |

- Internally terminated outputs. See load circuit diagram #4.
- Rise/Fall times are measured between V<sub>cc</sub> -0.98 V and V<sub>cc</sub> -1.63 V.

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