**EH13 Series**

- HCMOS output
- 3.3V supply voltage
- 8 pin DIP package
- Stability to 20ppm
- Custom lead length, gull wing options available

**NOTES**

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**ELECTRICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>1.000MHz to 155.520MHz</td>
</tr>
<tr>
<td>Operating Temperature Range</td>
<td>0°C to 70°C or -40°C to 85°C</td>
</tr>
<tr>
<td>Storage Temperature Range</td>
<td>-55°C to 125°C</td>
</tr>
<tr>
<td>Supply Voltage (V_{dd})</td>
<td>3.3V ±0.3V</td>
</tr>
<tr>
<td>Input Current</td>
<td>35mA Maximum (Unloaded)</td>
</tr>
<tr>
<td></td>
<td>±100ppm, ±50ppm, ±25ppm, or ±20ppm Maximum</td>
</tr>
<tr>
<td>Output Voltage Logic High (V_{oh})</td>
<td>2.7V_{dc} Minimum</td>
</tr>
<tr>
<td>Output Voltage Logic Low (V_{ol})</td>
<td>0.5V_{dc} Maximum</td>
</tr>
<tr>
<td>Rise Time / Fall Time</td>
<td>≤70.000MHz 20% to 80% of Waveform w/HCMOS Load</td>
</tr>
<tr>
<td>Load Drive Capability</td>
<td>≤70.000MHz</td>
</tr>
<tr>
<td>Duty Cycle (at V_{dd}=3.3V_{dc})</td>
<td>at 50% of Waveform</td>
</tr>
<tr>
<td>Tri-State Input Voltage</td>
<td>V_{oi}: No Connection or ≥2.2V_{dc}</td>
</tr>
<tr>
<td></td>
<td>V_{ol} ≤0.8V_{dc}</td>
</tr>
<tr>
<td>Aging (at 25°C)</td>
<td>±5ppm / year Maximum</td>
</tr>
<tr>
<td>Start Up Time</td>
<td>10mSeconds Maximum</td>
</tr>
<tr>
<td>Period Jitter: Absolute</td>
<td>±250pSec Maximum, ±100pSec Typical</td>
</tr>
<tr>
<td>Period Jitter: One Sigma</td>
<td>±50pSec Maximum, ±40pSec Typical</td>
</tr>
</tbody>
</table>

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FREQUENCY TOLERANCE / STABILITY
00=±100ppm Maximum (Standard)
45=±50ppm Maximum, 25=±25ppm Maximum
20=±20ppm Maximum

PACKAGE
HS=Half Size 8 Pin DIP

OPERATING TEMP. RANGE
Blank=0°C to 70°C (Standard), ET=-40°C to 85°C

DUTY CYCLE
Blank=50 ±10(%) (Standard), T=50 ±5(%)

FREQUENCY OUTPUT CONTROL FUNCTION
TS=Tri-State Enable High

PACKAGING OPTIONS
Blank=Bulk (Standard)
TR=Tape & Reel (only offered with Half Size 6 and Half Size G2 Options)

AVAILABLE OPTIONS
Blank=None (Standard)
CLXXX=Custom Lead Length (See Page 133)
G=Half Size Gull Wing (See Page 132)
G2=Half Size Gull Wing (See Page 132)

PART NUMBERING GUIDE
EH13 00 HS ET TS - 70.000M - G TR

MARKING SPECIFICATIONS
Line 1: ECLIPTEK
Line 2: EH13 TS
Series Designator
Line 3: XX.XXX M
Frequency in MHz (5 Digits Maximum + Decimal)
Line 4: XX Y ZZ
Week of Year
Last Digit of Year
Ecliptek Manufacturing Identifier

Note: Pin 1 shall be designated with a dot

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS
Characteristic
Fine Leak Test
Gross Leak Test
Mechanical Shock
Vibration
Lead Integrity
Solderability
Temperature Cycling
Resistance to Soldering Heat
Resistance to Solvents

Specification
MIL-STD-883, Method 1014, Condition A
MIL-STD-883, Method 1014, Condition C
MIL-STD-202, Method 213, Condition C
MIL-STD-202, Method 2007, Condition A
MIL-STD-883, Method 2004
MIL-STD-883, Method 2002
MIL-STD-883, Method 1010
MIL-STD-202, Method 210
MIL-STD-202, Method 215

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Specifications subject to change without notice.