

8 pin DIL High Frequency HCMOS

FEATURES

- Industry-standard 8 pin DIL package
- Frequency Range 125.01MHz to 200.0MHz
- High Q fundamental crystal and low jitter multiplier circuit
- Supply voltage +3.3Volts
- Designed for low-cost applications



DESCRIPTION

HV8 series oscillators provide a high quality HCMOS output at frequencies from 125.01MHz to 200.0MHz. Phase and RMS period jitter are kept within low limits. The oscillator has a tristate function available to conserve power.

SPECIFICATION

| | |
|--|---|
| Model: | 'HV' Series |
| Output Logic: | LVC MOS |
| Frequency Range: | 125.01MHz to 200.0MHz |
| Supply Voltage Vdd: | +3.3VDC ±5% |
| Supply Voltage Code: | '3' |
| Output Logic 'HIGH', '1': | 90% Vdd min. |
| Output Logic 'LOW', '0': | 10% Vdd max. |
| Integrated Phase Jitter: (12kHz to 20MHz) | 2.3ps typical; 4ps max. for 155.520MHz |
| Period jitter RMS: (Decoupling capacitor between Vdd and ground.) | 4.0ps typical for 155.520MHz |
| Period Jitter Peak to Peak: (Decoupling capacitor between Vdd and ground.) | 27ps typical, 30ps for 155.520MHz |
| Current Consumption (15pF Load): | 45mA max. |
| Rise/Fall Time: | 2.4ns typical (0.3V to 3.0V, 15pF load) |

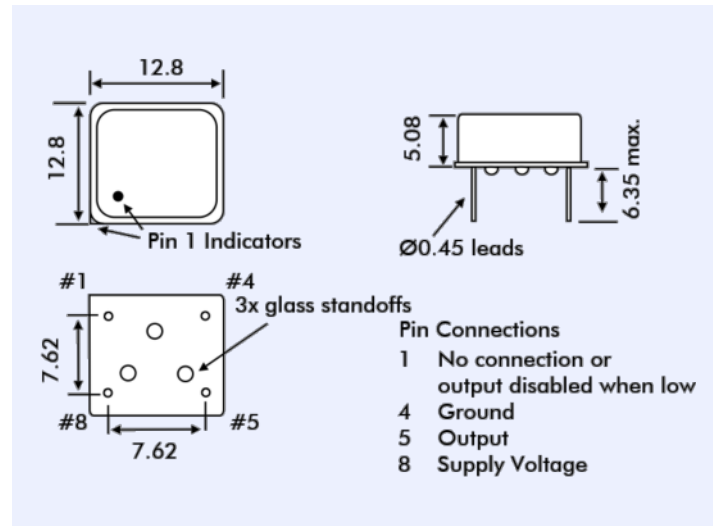
PHASE NOISE

| Offset | Frequency 155.520MHz |
|--------|----------------------|
| 10Hz | -65 dBc/Hz |
| 100Hz | -95 dBc/Hz |
| 1kHz | -120 dBc/Hz |
| 10kHz | -125 dBc/Hz |
| 100kHz | -121 dBc/Hz |
| 1MHz | -120 dBc/Hz |
| 10MHz | -140 dBc/Hz |

OUTLINE & DIMENSIONS

GENERAL SPECIFICATION

| | |
|------------------------------------|---|
| Frequency Stability: | From ±25ppm over -40° to +85°C (See part number table) |
| Load: | 15pF |
| Ageing: | ±3ppm max. first year ±2ppm per year thereafter |
| Start-up Time: | 10ms maximum |
| Duty Cycle: | 50% ±5% measured at 50% Vdd |
| Storage temperature: | -55° to +100°C |
| Enable/Disable (Tristate) | |
| Enable: | No connection or 70% Vdd applied to Tristate pad. |
| Disable: | 30% Vdd max. to tristate pad. |
| Input Static Discharge protection: | 2kV minimum. |



ABSOLUTE MAXIMUM RATINGS

Permanent damage may occur if units are operated beyond specified limits.

| | |
|-------------------|------------------------------|
| Supply Voltage: | +4.6 VDC max. |
| Input Voltage Vi: | Vss-0.5 min., Vdd +0.5V max. |
| Input Voltage Vo: | Vss-0.5 min., Vdd +0.5V max. |

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PART NUMBER FORMAT

Example 3HV8-DT-155.52

