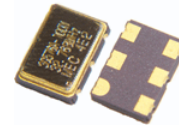


FEATURES

- Industry-standard 6 pad 7.0 x 5.0mm SMD package
- Frequency Range 750kHz to 800.0MHz
- High Q fundamental crystal and multiplier circuit
- Supply voltage +3.3Volts
- Tristate function to conserve power
- Phase jitter <4ps



DESCRIPTION

HPW576 series oscillators provide a high quality differential PECL output at frequencies from 38.0MHz to 640.0MHz. Phase jitter <4ps. Power supply voltage +3.3 Volts.

SPECIFICATION

Model:	HPW576	
Output Logic:	LVPECL	
	750kHz to 800.0MHz	
Supply Voltage Vdd:	+3.3VDC±5%	
Supply Voltage Code:	'3'	
Output Logic 'HIGH', '1':	Vdd-1.025 min. Term. RL = 50Ω to Vdd-2.0V*	
Output Logic 'LOW', '0':	Vdd-1.625 max. Term. RL = 50Ω to Vdd-2.0V*	
Integrated Phase Jitter: (12kHz to 20MHz)	2.6ps typical; 0.5ps max. for 155.520MHz	
Period jitter RMS: (Decoupling capacitor between Vdd and ground.)	4.3ps typical for 155.520MHz	
Period Jitter Peak to Peak: (Decoupling capacitor between Vdd and ground.)	27ps typical for 155.520MHz	
Current Consumption (15pF Load):	<24MHz:	25mA max.
	24.01MHz to 96MHz:	65mA max.
	96.01MHz to 700MHz:	100mA max.
Rise/Fall Time:	0.6ns typical, 1.5ns max. (20% to 80% of PECL waveform)	

PHASE NOISE

Offset	Frequency 155.520MHz
10Hz	-62 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

GENERAL SPECIFICATION

Frequency Stability:	From ±25ppm over -40° to +85°C (See part number table)
Load:	RL = 50Ω (Vdd-2.0V)*
Start-up Time:	10ms maximum
Duty Cycle:	50%±5% measured at Vdd-1.3V
Storage temperature:	-55° to +150°C
Enable/Disable (Tristate)	
Enable:	No connection to tristate pad, both PECL and comp. PECL outputs enable.
Enable:	When disabled, both outputs are enabled when tristate pad is taken above 0.45 Vdd, ref. to ground.
Disable:	Both outputs are disabled when the tristate pad is taken below 0.45 Vdd. Oscillator is always on, only buffer stage is disabled. Tristate pads: type 5761 on pad 1, type 5762 on pad 2.
Input Static Discharge protection:	2kV minimum.

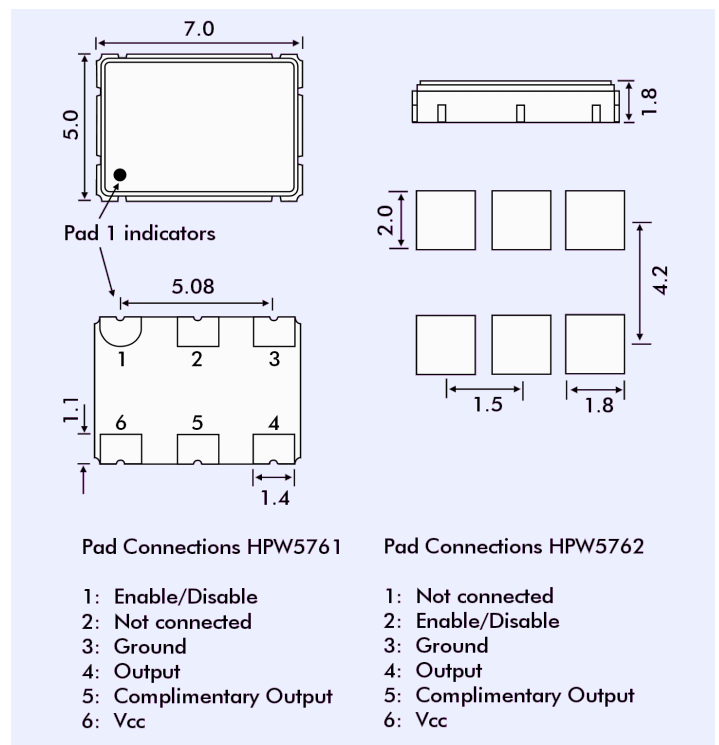
* Note: See test circuit diagram on page 2.

ABSOLUTE MAXIMUM RATINGS

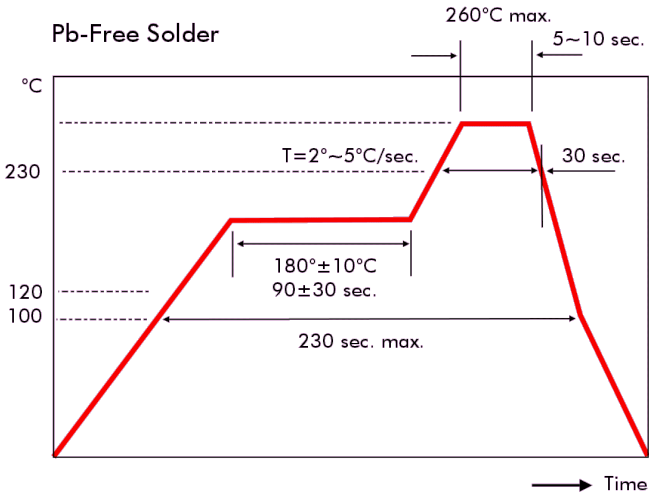
Permanent damage may occur if units are operated beyond specified limits.

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.

OUTLINE & DIMENSIONS



SOLDER PROFILE



PART NUMBER FORMAT

Example 3HPW5761-DT-156.52 **3HPW5761 - D T - 156.52**

Supply Voltage:

3 = 3.3 Volts

Package Designation*:

HPW5761

HPW5762

Stability over Temperature Range:

A = $\pm 25\text{ppm}$ over -10° to $+70^{\circ}\text{C}$

B = $\pm 50\text{ppm}$ over -10° to $+70^{\circ}\text{C}$

C = $\pm 100\text{ppm}$ over -10° to $+70^{\circ}\text{C}$

D = $\pm 25\text{ppm}$ over -40° to $+85^{\circ}\text{C}$

E = $\pm 50\text{ppm}$ over -40° to $+85^{\circ}\text{C}$

F = $\pm 100\text{ppm}$ over -40° to $+85^{\circ}\text{C}$

Tristate (Enable/Disable) Function

Nominal Frequency (MHz):

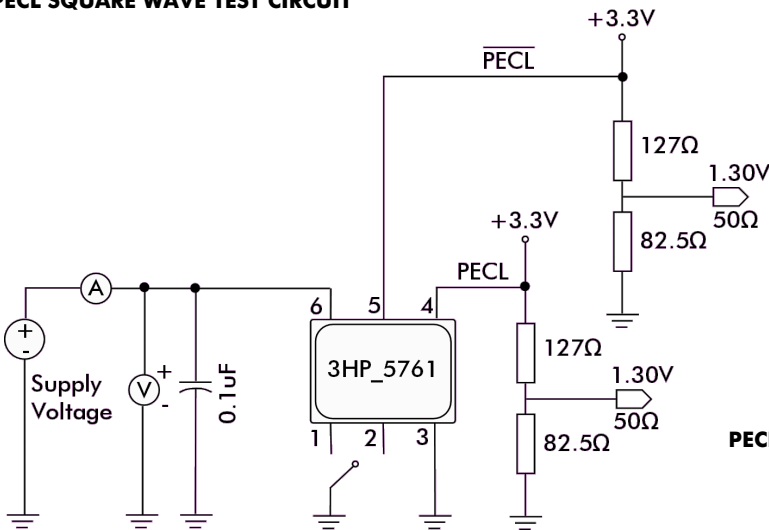
* Package Variants:

HPW5761 = Tristate (enable/disable) on Pad 1.

HPW5762 = Tristate (enable/disable) on Pad 2.

Check with Mercury sales office for availability.

PECL SQUARE WAVE TEST CIRCUIT



PECL SQUARE WAVE WAVEFORM

