

**Type VH-W**  
**4 pin(8 pin DIL layout)**  
**(1.5 ~ 50)MHz**

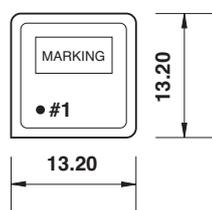
**A small resistance weld shielded metal case suitable for custom specifications and non-standard frequencies with extended custom performance criteria.**

**Wide pulling range, custom frequencies, good linearity**

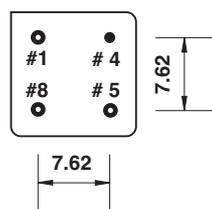
<b>Electrical specification</b>		
	<b>+3.3Vd.c.</b>	<b>+5.0Vd.c.</b>
<b>Frequency range</b>	(1.5 ~ 50)MHz	
<b>Stability *</b>	±(25 ~ 50)ppm, temperature range dependent	
<b>Pulling range</b>	±100ppm min.	
<b>Control voltage <math>V_t</math></b>	(+1.65 ±1.35)Vd.c.	(+2.5 ±2.0)Vd.c.,
<b>Supply current max.</b> (1.5 ~ 20)MHz (20 ~ 50)MHz	20mA 30mA	30mA 40mA
<b>Output</b>	TTL, CMOS	
<b>Symmetry</b>	(45 ~ 55)% - (40 ~ 60)%	
<b>Rise and fall time: **</b> (1.5 ~ 20)MHz (20 ~ 50)MHz	8nano. sec. max. 5nano. sec. max.	
<b>Operating temperature</b>	(-10 +60)°C, (-20 +70)°C, (-40 +85)°C	
<b>Ageing</b>	±5ppm first year max.	
<b>Storage temperature</b>	(-55 +125)°C	

\* inclusive of calibration tolerance at +25°C, temperature tolerance, supply voltage variation, load variation, first year ageing, shock and vibration.  
 \*\* measured with an output load of 15pF, between (10 ~ 90)%  $V_{cc}$

**VH-W dimensions(mm), through hole**



Pin diameter 0.45mm

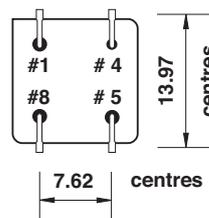
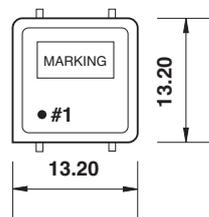


Pins viewed from bottom

**Pin connections**

- # 1 voltage control  $V_t$
- # 4 case and ground
- # 5 output
- # 8  $V_{cc}$

**VH-W dimensions(mm), gull wing**



Pads viewed from bottom  
 Pad size (1.143 x 0.635)mm

**Pad connections**

- # 1 voltage control  $V_t$
- # 4 case and ground
- # 5 output
- # 8  $+V_{cc}$

**Type VH-W**
**Ordering information**

<b>EXAMPLE</b>	type VH-W VCXO oscillator, 40.00MHz, $\pm 25\text{ppm}(-20 +70)^\circ\text{C}$ frequency stability, $\pm 100\text{ppm}$ pulling range, +3.3Vd.c., 8 pin DIL package, output CMOS 15pF, symmetry (45 ~ 55)%
<b>TFC PART NUMBER</b>	<b>VHW 40.0M E M C J *</b>
<b>VHW</b>	type: VH - W = VCXO type VH-W, 4 pin (8 pin DIL)
<b>40.0M</b>	frequency: 40.0MHz, frequency range (1.5 ~ 50)MHz
<b>E</b>	supply voltage: E = +3.3Vd.c.,
<b>M</b>	frequency stability: M = $\pm 25\text{ppm}$
<b>C</b>	temperature range: C = $(-20 +70)^\circ\text{C}$
<b>J</b>	output logic and symmetry: J = CMOS 15pF, (45 ~ 55)%
<b>OPTIONS</b>	
<b>supply voltage</b>	E: +3.3Vd.c., C: +5.0Vd.c.
<b>frequency stability</b>	B: $\pm 10\text{ppm}$ , C: $\pm 20\text{ppm}$ , : M = $\pm 25\text{ppm}$ , P = $\pm 50\text{ppm}$
<b>temperature range</b>	I: $(-10 +60)^\circ\text{C}$ , C: $(-20 +70)^\circ\text{C}$ , L: $(-40 +85)^\circ\text{C}$
<b>* GW</b>	add suffix GW for gull wing pre-form of leads