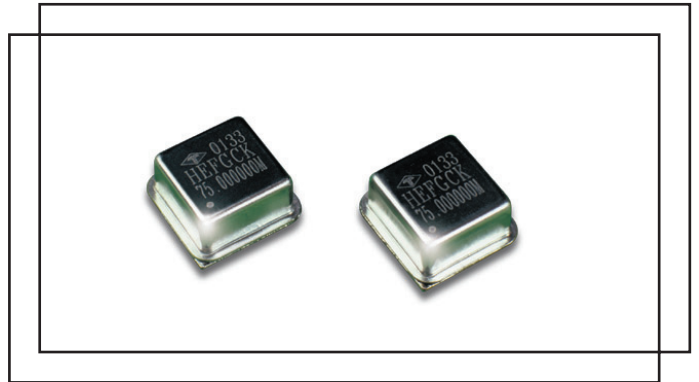


## Type OH clock oscillator 4 pin(8 pin DIL layout) (1.0 ~ 156)MHz

- # resistance weld package
- # standard and custom frequencies
- # +3.3Vd.c., +5.0Vd.c. supply

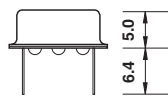
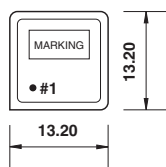


### Electrical specification

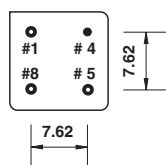
<b>Case style</b>	4 pin(8 pin DIL layout): (13.2 x 13.2)mm, height 5.0mm (1.0 ~ 156)MHz		
<b>Stability *</b>	±(25 ~ 100)ppm, temperature range dependent		
<b>Supply voltage V<sub>cc</sub></b>		<b>+3.3Vd.c.</b>	<b>+5.0Vd.c.</b>
<b>Supply current max.</b>	(1.0 ~ 20)MHz	10mA	15mA
	(20 ~ 50)MHz	30mA	40mA
	(50 ~ 156)MHz	40mA	50mA
<b>Rise and fall time max. **</b>	(1.0 ~ 20)MHz	10ns	8ns
	(20 ~ 50)MHz	6ns	5ns
	(50 ~ 100)MHz	5ns	4ns
	(100 ~ 156)MHz	3ns	3ns
<b>Operating temperature</b>	(-20 +70)°C ~ (-40 +85)°C		
<b>Storage temperature</b>	(-55 +125)°C		
<b>Output</b>	TTL, CMOS		
<b>Symmetry</b>	(45 ~ 55)%, (40 ~ 60)%		
<b>Tri-state</b>	fixed frequency or tri-state		
<b>Ageing</b>	±5ppm first year max.		

\* 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<sub>CC</sub>

### Dimensions(mm), through hole



Pin diameter 0.45mm

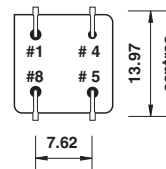
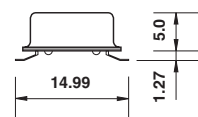
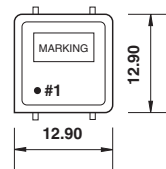


Pins viewed from bottom

#### Pin connections

- # 1 N/C or output inhibit
- # 4 Case and ground
- # 5 Output
- # 8 +Vcc

### Dimensions(mm), gull wing



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

#### Pad connections

- # 1 N/C or output inhibit
- # 4 Case and ground
- # 5 Output
- # 8 +Vcc

## Type OH clock oscillator

### Ordering information

**Example .... type H clock oscillator, 56.00MHz, +3.3Vd.c., 4 pin(8 pin DIL layout) through hole package, tri-state,  $\pm 50\text{ppm}(-20 +70)^\circ\text{C}$ , CMOS 15pF, symmetry (45 ~ 55)%**

**TFC PART NUMBER .... OH 56.0M T T G C J**

'OH' .... type number: OH = clock oscillator type H

'56.0M' .... frequency: 56.0M = 56.00MHz, frequency range from (1.0 ~ 156)MHz

'T' .... supply voltage and package combination: T = +5Vd.c., 8 pin DIL through hole package

'T' .... tri state function pin #1: T = fixed frequency with tri-state

'G' .... frequency stability: G =  $\pm 25\text{ppm}$

'C' .... temperature range: C =  $(-20 +70)^\circ\text{C}$

'J' .... output logic and symmetry: J = CMOS 15pF, (45 ~ 55)%

**Supply voltage and package combination ....**  
 T: +5Vd.c., 8 pin DIL through hole  
 G: +5Vd.c., gull wing package  
 E: +3.3Vd.c., 8 pin DIL through hole  
 F: +3.3Vd.c., gull wing package

**Tri-state function pin #1 ....**  
 T: fixed frequency with tri-state  
 F: fixed frequency without tri-state

**Frequency stability ....**  
 D:  $\pm 25\text{ppm}$  - not available over  $(-40 +85)^\circ\text{C}$   
 G:  $\pm 50\text{ppm}$   
 H:  $\pm 100\text{ppm}$

**Temperature range ....**  
 C:  $(-20 +70)^\circ\text{C}$   
 D:  $(-30 +80)^\circ\text{C}$   
 L:  $(-40 +85)^\circ\text{C}$

**Output logic and symmetry ....**  
 A: TTL(45 ~ 55)%  
 B: TTL(40 ~ 60)%  
 R: TTL 50pF(40 ~ 60)%  
 E: TTL 50pF(45 ~ 55)%  
 J: CMOS 15pF(45 ~ 55)%  
 K: CMOS 15pF(40 ~ 60)%  
 F: CMOS 50pF(45 ~ 55)%  
 G: CMOS 50pF(40 ~ 60)%

### Environmental test conditions

<b>Mechanical shock</b>	1500g, half sine wave, 0.5ms, 3 directions	MIL STD 883D 2002.3, condition A
<b>Thermal shock</b>	$(-55 \sim +125)^\circ\text{C}$ , 20 cycles	MIL STD 883D 1011.9, condition B
<b>Vibration</b>	(10 ~ 2000)Hz, 1.25mm, sine wave, 20g, each of three planes, duration 4 hours	MIL STD 883D 2005.2, condition B
<b>Solderability</b>	$+245^\circ\text{C} \pm 5^\circ\text{C}$ , 5 seconds $\pm 0.5$ seconds	MIL STD 883D 2003.7
<b>Fine leak</b>	Mass spectrometer leak rate less than $2^{10-8}$ atm.cc/sec. helium	MIL STD 883D 1014.9, condition A
<b>Gross leak</b>	Leak test in de-ionised water, vacuum 70cm/Hg	
<b>Humidity</b>	85% relative humidity, $+85^\circ\text{C}$ , 500 hours	JIS-C 7022 B-5, condition C