

## HO-23C / 26C Series 0.5 to 150MHz



This type of oscillator is a full size tri-state Enable/Disable control. The metal package with pin #4 case ground acts as shielding to minimize EMI radiation.

### FEATURES

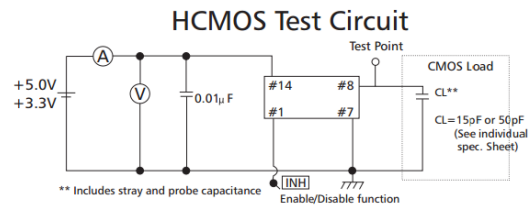
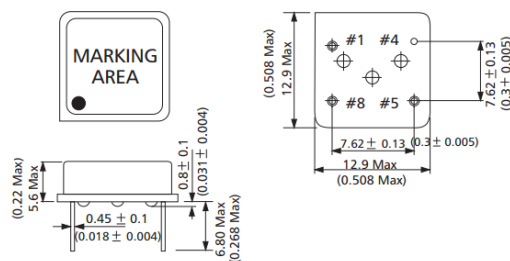
- 8 Pin Half size
- Tri-State Enable/Disable
- Industry Standard
- Wide Frequency Range
- Low Cost

### Electrical Specifications

Parameter	Symbol	Condition	HO-23C	HO-26C
Frequency Range	$F_0$		0.5 to 150.0MHz	
Frequency Stability *		All Condition *	$\pm 25$ PPM, $\pm 50$ PPM, $\pm 100$ PPM	
Operating Temperature Range	$T_{OPR}$		0°C to 70°C (-40°C to 85°C option)	
Storage Temperature Range	$T_{STG}$		-55°C to 125°C	
Power Supply Voltage	$V_{DD}$		5.0V $\pm$ 10%	3.3V $\pm$ 10%
Aging (first year)		25°C $\pm$ 3°C	$\pm$ 5PPM	
Supply Current	$I_{DD}$	0.5 to 23.999MHz	20mA Max	15mA Max
		24.000 to 49.999MHz	30mA Max	20mA Max
		50.000 to 69.999MHz	40mA Max	30mA Max
		70.000 to 150.000MHz	60mA Max	45mA Max
Output Symmetry	Sym	$\frac{1}{2} V_{DD}$	40/60% (45/55% option)	
Rise Time	$T_r$	10% $V_{DD}$ to 90% $V_{DD}$	10ns Max	8ns Max
Fall Time	$T_f$	90% $V_{DD}$ to 10% $V_{DD}$	10ns Max	8ns Max
Output Voltage	$V_{OH}$		90% $V_{DD}$ Min	
	$V_{OL}$		10% $V_{DD}$ Max	
	TTL Load		1 to 10 TTL	1 to 5 TTL
Output Load	HCMOS Load		~50MHz: 50pF	~50MHz: 30pF
			~70MHz: 30pF	~150MHz: 15pF
			~150MHz: 15pF	
Startup Time	$T_s$		10ms Max	
Pin 1, tristate function			Pin 1 = High or Open, output active at Pin 5 Pin 1 = Low, high impedance at Pin 5	

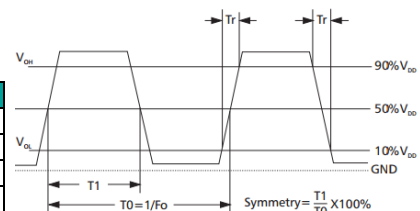
\* Include 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

### Mechanical Dimensions – mm (inch)



\*\* Includes stray and probe capacitance

### HCMOS Output Waveform



Enable/Disable Function		Pin	Connection
Input (Pin1)	Output (Pin5)	1	Tri-state/NC
Open	Enable	4	GND
High	Enable	5	Output
Low	Disable	8	$V_{DD}$

\*\*Note: 0.01µF bypass capacitor should be placed between  $V_{DD}$  (Pin8) and GND(Pin4) to minimize power supply line noise