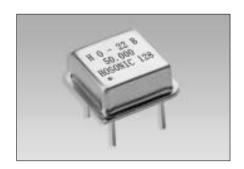
# HALF SIZE CLOCK OSCILLATORS TTL/HCMOS COMPATIBLE

## • HO-22&25 Series



The HO-22 series oscillator is TTL /HCMOS compatible. HO-25 series is with 3.3V powerSupply voltage. The metal package with pin#4 case ground acts as shielding to minimize EMI radiation.

#### **FEATURES**

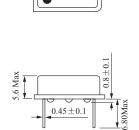
- TTL/HCMOS Output compatible
- 8 Pin Half Size
- Industry Standard
- Wide Frequency Range
- Low Cost
- Resistance Weld Package
- 3.3V available

## **Electrical Specifications**

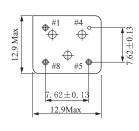
Parameter			Condition	HO-22	HO-25
Frequency Range Fo			0.5MHz~100.00MHz	0.5MHz~125.00MHz	
Frequency Stability*		All Condition*	±25ppm, ±50ppm, ±100ppm		
Operating Temperature Range TOPR			0°C~70°C(-40°C~+85°C option)		
Storage Temperature Range T <sub>STG</sub>		Tstg		-55°C∼+125°C	
Power supply Voltage V <sub>DD</sub>		$V_{\mathrm{DD}}$		5.0V+/-10%	3.3V+/-10%
Aging(First Year)			25°C ±3°C	±5ppm	
Supply Current		Idd	0.5MHz to 23.999MHz	20mA Max	15mA Max
			24.000MHz to 49.999MHz	30mA Max	20mA Max
			50.000MHz to 69.999MHz	40mA Max	30mA Max
			70.000MHz to 125.000MHz	60mA Max	45mA Max
Output Symmetry		Sym	$1/2V_{\mathrm{DD}}$	40/60%(45/55% Option)	
Rise time		Tr	$10\%V_{DD}\sim90\%V_{DD}$	10 nS Max	8 nS Max
Fall Time		Tf	$90\% V_{DD} \sim 10\% V_{DD}$	10 nS Max	8 nS Max
Output Voltage		Voh		90% V <sub>DD</sub> min	
Output voltage		Vol		10% V <sub>DD</sub> max	
Output load	TTL Load			1~10TTL	1~5TTL
	HCMOS Load			~50M:50pF ~70M:30pF ~100M:15pF	~50M:30pF ~125M:15pF
Start-up Time			Ts	10mS Max	

<sup>\*</sup>Include: 25°C tolerance, operating temperature range, input voltage change, aging, load change, shock and vibration

## **Mechanical Dimensions(mm)**

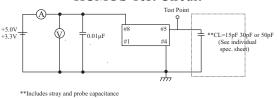


MARKING AREA



Pin	Connection
#1	N.C.
#4	GND
#5	Output
#8	Vnn

### **HCMOS Test Circuit**



#### **HCMOS Output Waveform**

