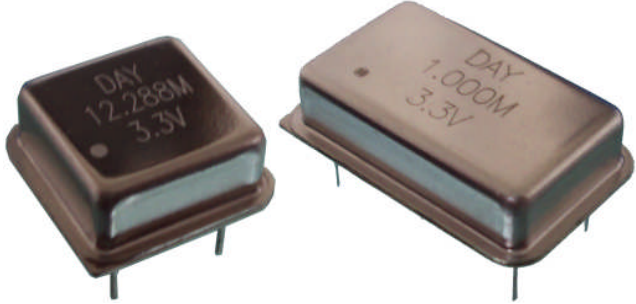


Crystal Oscillator Series		<b>Features</b> ◆RoHS Compliant    ◆HCMOS/TTL compatible	
DIP08	DIP14		

### Electrical Specifications

Item		Specifications			
Type		DIP08/DIP14	3.3V	DIP08/DIP14	5.0V
Nominal Frequency Range		0.500MHz to 268.000MHz			
Frequency Stability		±20ppm(Standard) at 25°C±3°C, ±5ppm to ±100ppm available			
Operating Temperature		-20°C to +70°C(Standard), -40°C to +85°C available			
Storage Temperature		-55°C to +125°C			
Supply Voltage		3.3V±10%		5.0V±10%	
Supply Current	0.5 to 29.99MHz	10mA Max.	0.5 to 16.99MHz	10mA Max.	
	30.0 to 59.99MHz	15mA Max.	17.0 to 59.99MHz	25mA Max.	
	60.0 to 89.99MHz	20mA Max.	60.0 to 89.99MHz	40mA Max.	
	90.0 to 125.0MHz	30mA Max.	90.0 to 125.0MHz	60mA Max.	
	125.0 to 268.0MHz	70mA Max.	125.0 to 268.0MHz	80mA Max.	
Output	Rise & Fall Time	6ns: 0.5 to 49.99MHz			
		5ns: 50.0 to 79.99MHz			
		4ns: 80.0 to 99.99MHz			
		3ns: 100.0 to 124.99MHz			
		2ns: 125.0 to 268.0MHz			
Load	30pF:	1.0 to 49.99MHz	50pF Max.		
	15pF:	0.5 to 268.0MHz			
Current Max.	4mA		16mA		
Low Level	0.5V Max.				
High Level	V <sub>DC</sub> -0.5V Min.				
Symmetry at 1/2 V <sub>DC</sub>	45/55% typical, 40/60% available				
Start Up Time	<10ns				
Aging	±2ppm/year				

### Stability vs. Temperature

◆ Standard		2	3	5	0	6	7	Remarks
◇ Please specify		±20ppm	±30ppm	±50ppm	±100ppm	±5ppm	±10ppm	
C	-20°C to +70°C	◆	◇	◇	◇	◇	◇	Standard
D	-40°C to +85°C	◇	◇	◆	◇	◇	◇	

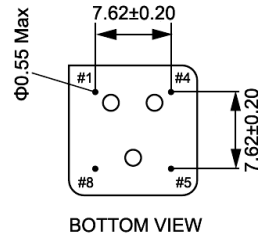
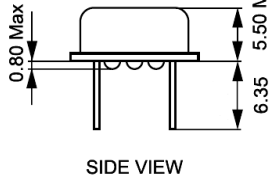
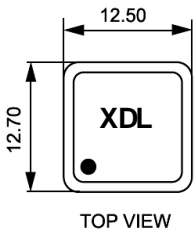
Crystal Oscillator Series						DIP08	DIP14
---------------------------	--	--	--	--	--	-------	-------

## Ordering Information

Q	O	Type	Pin	XX.XXXX XXX.XXX	M	Output Logic	Supply Voltage	Stability Vs.Temp.	Operating Temp.	Symmetry At 1/2 V <sub>DC</sub>	Option
Q: Quartz O: Oscillator	08D: DIP08 14D: DIP14	Blank: 4Pins	Center frequency 0.5 to 268.0MHz	M: MHz	T: Tri-state B: No Tri-State	A: 3.3V B: 5.0V	See Table	See Table	1: 45/55% 2: 40/60%	F: Lead Free T: T&R Blank: Bulk	

**Example: QO14D32.768MBA2C2F** (Oscillator, DIP14, 32.768MHz, No tri-state, 3.3V, +/-20ppm, -20 to +70deg., 40/60%, Bulk, Lead free)

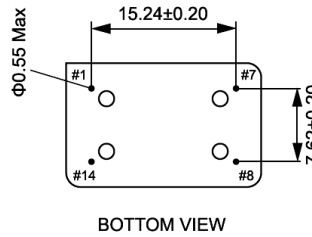
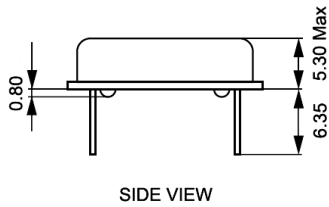
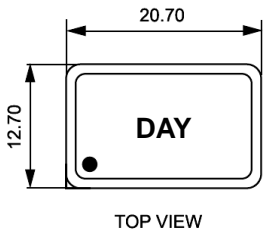
## Dimensions DIP08



Pin	Connection
#1	Not connected or E/D
#4	GND
#5	OUTPUT
#8	V <sub>DC</sub>

Unit:mm

## Dimensions DIP14

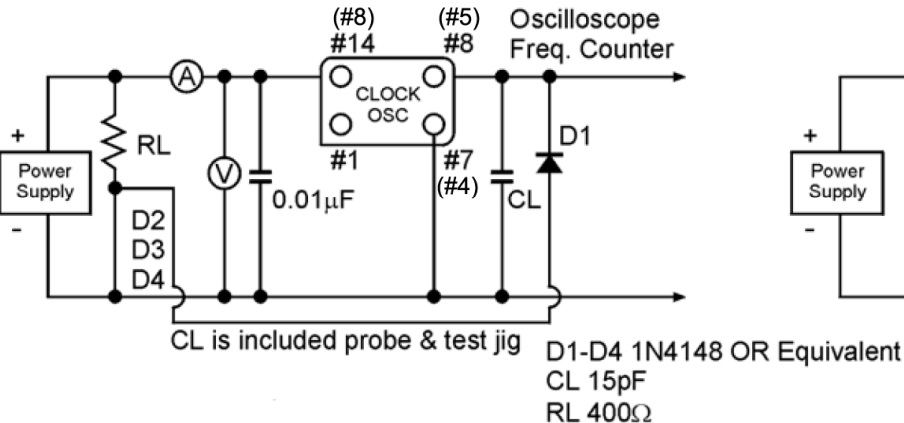


Pin	Connection
#1	Not connected or E/D
#7	GND
#8	OUTPUT
#14	V <sub>DC</sub>

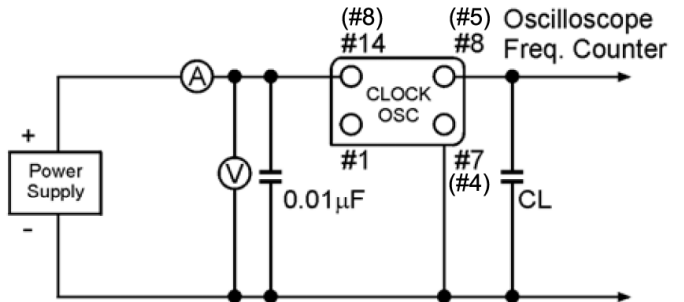
Unit:mm

## Test Circuit

### FOR TTL COMPATIBLE



### FOR HCMOS COMPATIBLE





Crystal Oscillator Series

DIP08

DIP14

### Reflow Soldering Profile

