



Crystal Oscillator Series

OSC HC-49ST/SMD

Features

- ◆Metal package
- ◆RoHS Compliant
- ◆HCMOS/TTL compatible

Electrical Specifications

Item		Specifications						
		C-MOS			TTL			
Type		5.0V						
Nominal Frequency Range		156.25KHZ to 75.000MHz						
Frequency Stability		±20ppm(Standard) at 25℃±3℃, ±10ppm to ±100ppm available						
Operating Temperature		-20℃ to +70℃(Standard), -40℃ to +85℃ available						
Storage Temperature		-55℃ to +125℃						
Supply Voltage		5.0V±10%						
Supply Current Max.		MHz	15pF	50pF	MHz	2LS-TTL	10LS-TTL	10TTL
		0.15 to 19.99	5mA	8mA	0.15 to 19.99	5mA	8mA	10mA
		20.0 to 49.99	20mA	10mA	20.0 to 49.99	20mA	10mA	35mA
		50.0 to 75.00	45mA		50.0 to 75.00	45mA		
Output	Rise & Fall Time	50ns:	0.156 to 1.999MHz		8ns:	1.25 to 28.99MHz		
		20ns:	2.00 to 19.99MHz		5ns:	29.0 to 50.00MHz		
		10ns:	20.0 to 49.999MHz					
		8ns:	50.0 to 75.000MHz					
	Load	15pF:	0.156 to 75.00MHz		2LS-TTL:	0.156 to 75.00MHz		
		50pF:	1.25 to 50.00MHz		10LS-TTL:	1.25 to 20.00MHz		
Current Max.		8mA			16mA			
Low Level		V _{DC} ×0.1 Max.			+0.5V Max.			
High Level		V _{DC} ×0.9 Min.			+2.4V Min.			
Symmetry at 1/2 V _{DC}		45/55% typical 40/60% available			40/60%(+1.4 V _{DC})			
Start Up Time		<10ns						
Aging		±2ppm/year						

Stability vs. Temperature

◆ Standard		2	3	5	0	6	7	Remarks
◇ Please specify		±20ppm	±30ppm	±50ppm	±100ppm	±10ppm	±15ppm	
C	-20°C to +70°C	◆	◇	◇	◇	◇	◇	Standard
D	-40°C to +85°C	◇	◇	◆	◇	◇	◇	

Ordering Information

Q	O	Type	Pin	XX.XXXX XXX.XXX	M	Output Load	Supply Voltage	Stability Vs.Temp.	Operating Temp.	Symmetry At 1/2 V _{DC}	Option
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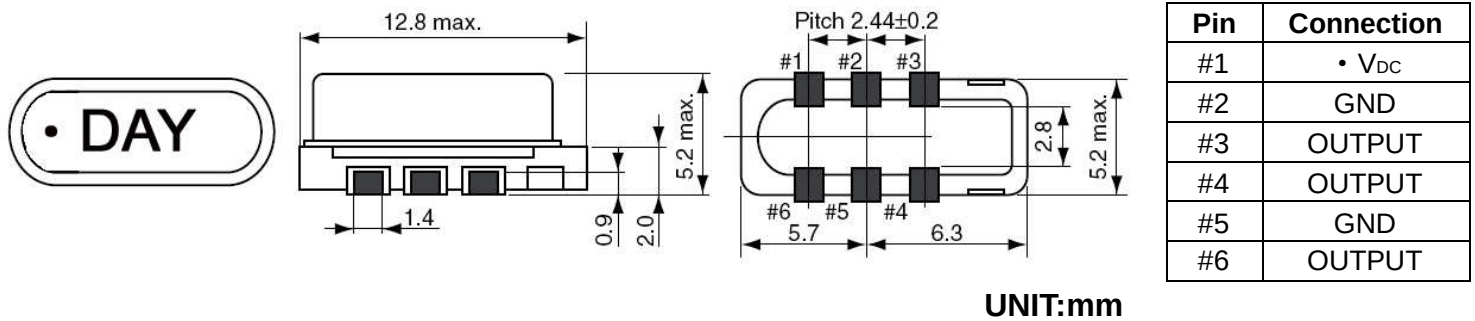
Q:Quartz O:Oscillator 49STD: HC-49ST/SMD C: 6Pins Center frequency 0.15MHZ to 75.0MHZ M: MHz 1: 15pF 2: 50pF 3: 2LS-TTL 4: 10LS-TTL 5: 10TTL A:5.0V See Table See Table F:Lead Free 1:45/55% 2:40/60% T:T&R Bank:Bulk

Example:QO49STD20.000M1A2C1FB(Oscillator,HC-49ST,6Pins ,20.000MHz, 15pF, 5.0V, +/-20ppm,-20 to +70deg. 45/55%,Bulk,Lead free)

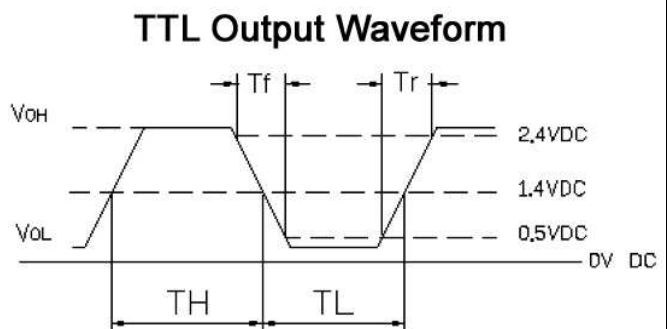
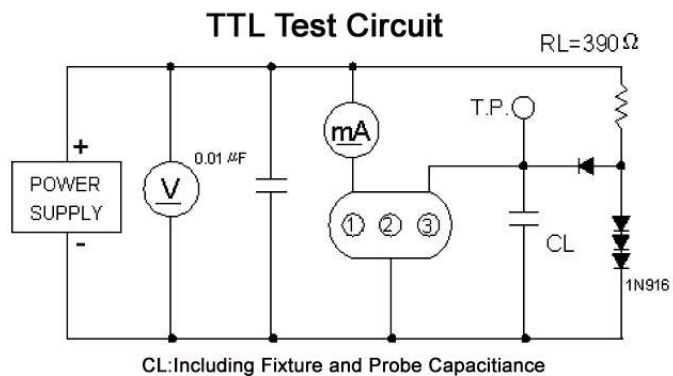
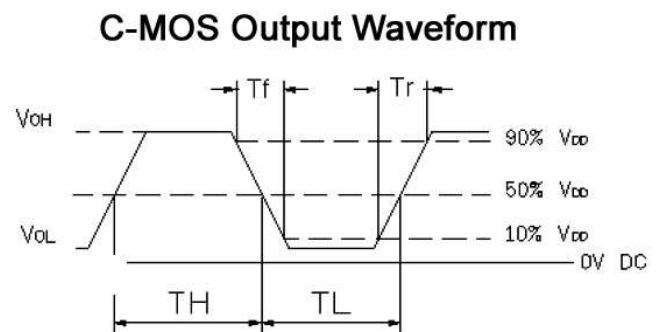
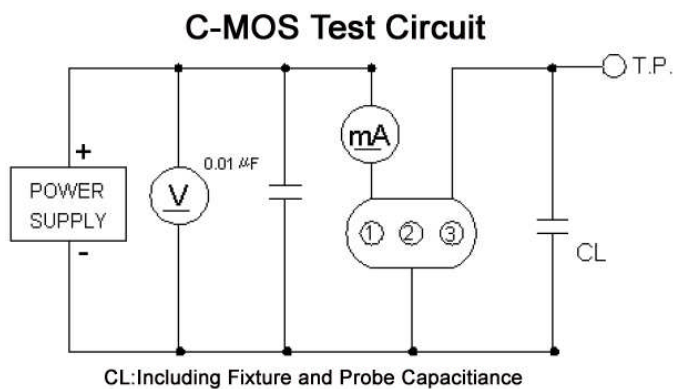
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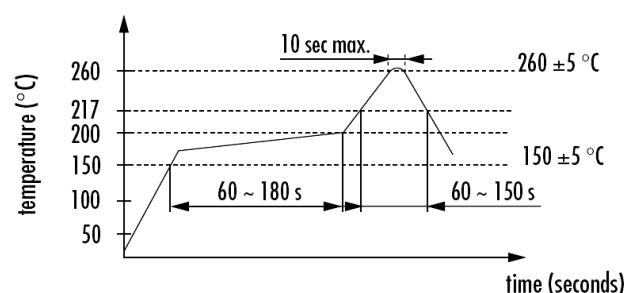
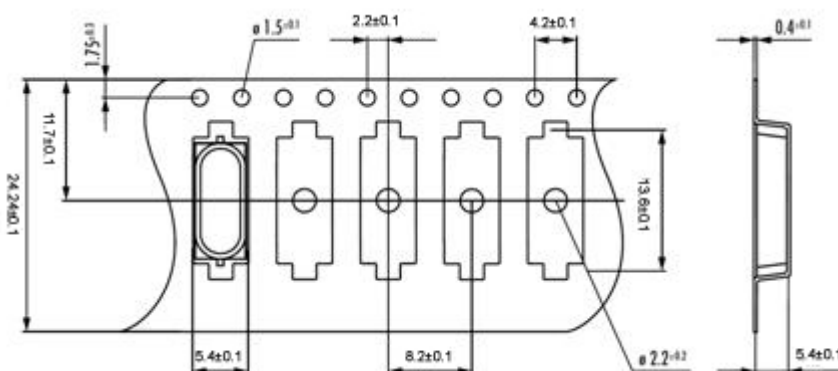
Dimensions



Test Circuit and Output Waveform



Taping Specification / Reflow Soldering Profile



1000pcs/Reel