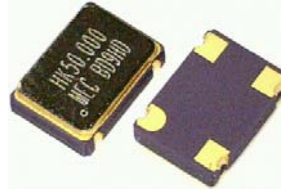


SMD CMOS output  
7.0 x 5.0 x 1.4 mm



Features

- Ultra Small SMD seam sealed clock crystal oscillator units.
- Tri-state function available.

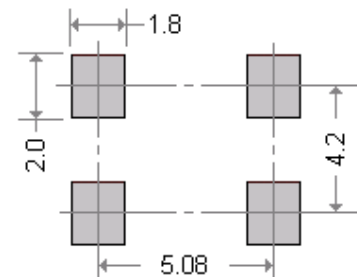
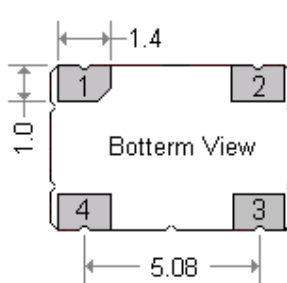
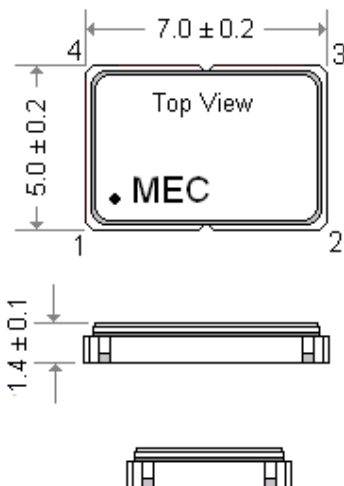
Applications

- Designed for hand-held consumer electronic devices requiring a low current consumption .
- Less than 1.7 mA current consumption for 27 MHz at 1.8V and less than 2 uA at disabled mode .
- Phase noise is -130 dBc/Hz at 10 KHz offset
- 1.8V, 2.5V or 3.3V supply voltages.

General Specifications

Parameters		Electrical Spec.			
Input Voltage ( V <sub>DD</sub> )		2.5 V ± 5 %			
Frequency Range		0.25 ~ 50.0 MHz			
Output Wave Form		CMOS output			
Output Logic High " 1 "		2.0 V ( min. ) [ 90 % of V <sub>DD</sub> ]			
Output Logic Low " 0 "		0.3 V ( max. ) [ 10 % of V <sub>DD</sub> ]			
Current Consumption ( typical )	16.000 MHz	1.6 mA	30.000 MHz	2.8 mA	
	20.945 MHz	1.9 mA	38.000 MHz	3.3 mA	
	25.000 MHz	2.2 mA	50.000 MHz	4.0 mA	
Output Load		15 pF			
Rise Time ( Tr ) / Fall Time ( Tf )		4.0 ns ( typ. ) [ 25 MHz PLL off ]			
Fanout ( Drive Capability )		12 mA ( typical )			
Duty Cycle		50% ± 5% [ measured at 1.4 V <sub>D.C</sub> ]			
Start - Up Time ( Ts )		10 m sec. ( typical ) ; V <sub>DD</sub> reaches 1.62 V			
Storage Temperature		- 50°C to 100°C			
Voltage Sensitivity		± 0.8 ppm ( typical ) with 10% variation of V <sub>DD</sub>			
Aging		± 3 ppm per year ( max. )			
Frequency Stability <sup>(1)</sup> Codes	Frequency Stability over Operating Temperature Range	± 25 ppm	± 50 ppm	± 100 ppm	If non-standard , please enter the desired stability after the " C " or " I " For example : " C20 " ±20 ppm over -10°C to +70°C ; " I20 " ± 20 ppm over -40°C to +85°C
	Commercial ( -10°C to +70°C )	A	B	C	
	Industrial ( -40°C to +85°C )	D	E	F	

Outline Dimensions ( Unit : mm )



Land Pattern ( reference )

Pad Connections :  
 Pad 1 : Enable / Disable  
 ( pad 1 is Tri-state as standard for all SWO series . )  
 Pad 2 : Ground  
 Pad 3 : Output  
 Pad 4 : Supply

Mercury [www.mercury-crystal.com](http://www.mercury-crystal.com)