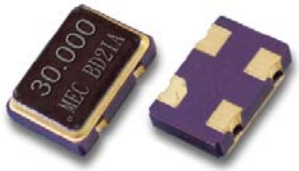
Clock Oscillators [Ultra Low Currentn] *HK53 series* *1.8 V*

SMD CMOS output
5.0 x 3.2 x 1.2 mm



RoHS Compliance

Features

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

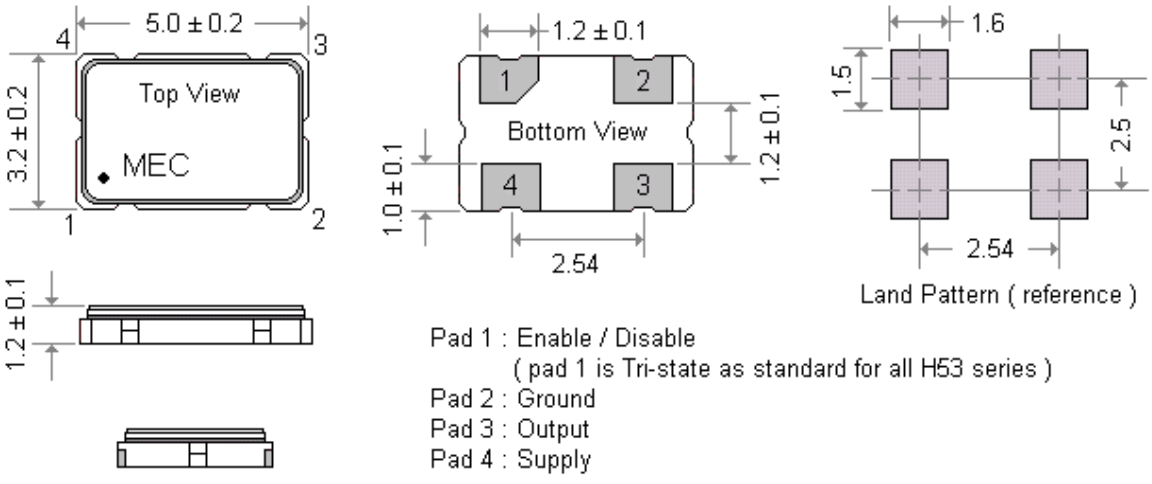
Applications

- 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

Paramenters		Electrical Spec.			
Input Voltage (V_{DD})		1.8 V ± 5 %			
Frequency Range		0.37 ~ 50.0 MHz			
Output Wave Form		CMOS output			
Output Logic High " 1 "		1.4 V (min.) [90 % of V_{DD}]			
Output Logic Low " 0 "		0.2 V (max.) [10 % of VDD]			
Current Consumption (typical)		16.000 MHz	1.1 mA	30.000 MHz	2.0 mA
		20.945 MHz	1.3 mA	38.000 MHz	2.3 mA
		25.000 MHz	1.6 mA	50.000 MHz	2.7 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 VD.C]			
Start - Up Time (Ts)		10 m sec.(typical) ; V_{DD} reaches 1.62 V			
Storage Temperature		- 50°C to 100°C			
Voltage Sensitivity		± 0.8 ppm (typical) with 10% variation of V_{DD}			
Aging		± 3 ppm per year (max.)			
Frequency Stability [1] 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)



Pad 1 : Enable / Disable
(pad 1 is Tri-state as standard for all H53 series)
Pad 2 : Ground
Pad 3 : Output
Pad 4 : Supply

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