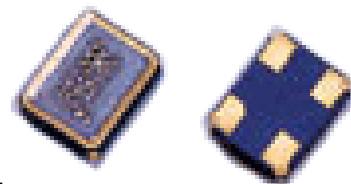


CLOCK OSCILLATORS		Logic: HCMOS		MERCURY Since 1973
"H32" series	3.2x2.5x1.1 mm;	Wave Form: Square wave		

- Suitable for light weight and compact consumer electronic devices
- Ideal for high density boards
- Mercury's smallest footprint clock oscillators.
- RoHS compliant and lead-free product



General Specifications

$T_A = +25^{\circ}\text{C}$, V_{DD} at specified voltage, $CL = 15\text{ pF}$

Input Voltage (V _{DD})		V _{DD} = +3.3 V D.C. ±5%		V _{DD} = +5.0 V D.C. ±5%	
Mercury Model		25H32		3H32	
Frequency Range		16.0 MHz ~44.0 MHz			
Output Logic		HCMOS			
Output Voltage HIGH “1”		90% V _{DD} min.			
Output Voltage LOW “0”		10% V _{DD} max.			
Rise Time / Fall Time (0.1V _{DD} ↔ 0.9 V _{DD})		10 n sec. max..			
Output Load		15 pF			
Current Consumption		5 mA max. at 20 MHz 9 mA max. at 40 MHz		9 mA max. at 16 MHz 12 mA max. at 40 MHz.	
Frequency Stability ⁽¹⁾	Commercial (0°C to +70°C) Temperature code is ‘C’	Stability code “A”:±25 ppm over 0°C to +70°C Stability code “B”:±50 ppm over 0°C to +70°C Stability code “C”: ±100 ppm over 0°C to +70°C”) If non-standard please enter the desired stability after the “C”. For example “C20” represents ±20 ppm over 0 to +70°C			
	Wider Commercial Range: (-20°C to +70°C) T	Stability code “G”:±25 ppm over -20°C to +70°C Stability code “H”:±50 ppm over -20°C to +70°C Stability code “J”:±100 ppm over -20°C to +70°C			
Duty Cycle (symmetry)		Standard: 50%±10%. Option: 50%±5%. At 50% V _{DD}			
Start-up Time (Ts)		10 m sec. max.			
Phase Jitter RMS		10 p sec. typical			
Pin 1	If no connection or voltage of 2.2 V or greater is applied to pad No. 1.: The output is active If voltage of 0.8 V or lower is applied to pad 1: The output is high impedance.				
	Enable Disable Delay Time is 100 n sec. max..				
Aging		±5 ppm first year max. At +25°C			
Packaging		178 mm reel; 8 mm tape; 1000 pcs per reel.			

⁽¹⁾Inclusive of 25°C tolerance, operating temperature range, $\pm 10\%$ input voltage variation, load change, aging, shock and vibration.

MERCURY www.mercury-crystal.com

Taiwan: TEL (886)-2-2406-2779, FAX (886)-2-2496-0769, e-mail: sales-tw@mercury-crystal.com

U.S.A.: TEL (1)-909-466-0427, FAX (1)-909-466-0762, e-mail: sales-us@mercury-crystal.com

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CLOCK OSCILLATORS**"H32" series 3.2x2.5x1.1 mm; Wave Form: Square wave****Logic: HCMOS****MERCURY**

Since 1973

Environment Performance Specifications

Green Requirement	RoHS compliant; Pb-free product
Storage temp. range	-50 to +125°C
Humidity	85% RH, 85°C, 48 hours
Hermetic seal	Lead rate 2×10^{-8} ATM-cm ³ /sec max.
Solderability	MIL-STD-202F method 208E
Reflow	260°C for 10 sec.
Vibration	MIL-STD-202F method 204, 35G, 50 to 2000 Hz
Shock	MIL-STD-202F method 213B, test condi. E, 1000GG ½ sine wave
MIL-0-55310	Exceeds environmental and electrical spec. of equivalent MIL-0-55310

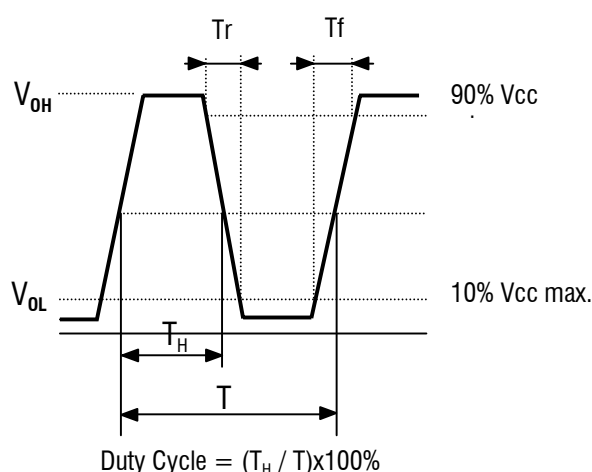
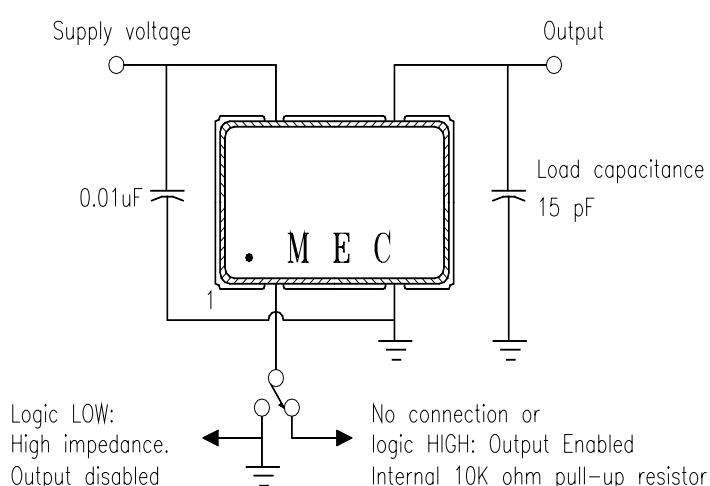
Part Number Format and Example:**Example:** 3H32-AT-16.000-S**Explanation:** H32 clock oscillator with pad 1 Tri-state, +3.3 V supply voltage, ± 25 ppm frequency stability over 0 to +70°C, 16.000 MHz, duty cycle is 45% / 55%.

3	H32	—	A	T	—	16.000	S	
❶	❷		❸	❹		❺	❻	

❶: Voltage codes: "25" for +2.5 V; "3" for +3.3 V; "5" for +5 V

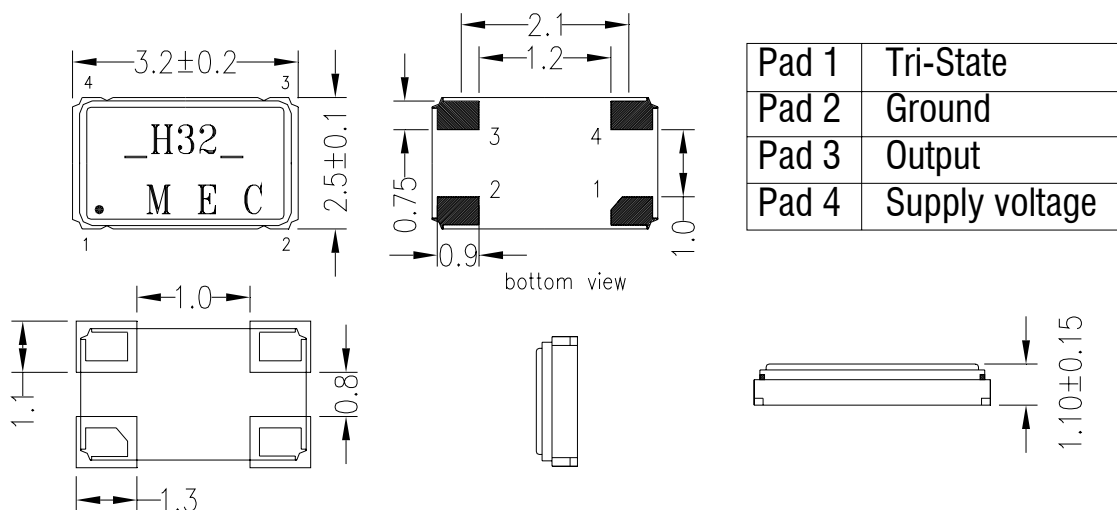
❷: Product series ❸: Frequency stability code: "A" ~ "J" or custom. See table above.

❹: "T": Tri-state option on pad 1 (Tri-state option is standard if not specified), leave blank if tri-state is not required ❺: Frequency in MHz ❻: "S" for 45% / 55% duty cycle option. Leave blank if duty cycle is 40% / 60% (standard).

H32 OUTPUT WAVEFORM:**H32 Test Circuit:**

CLOCK OSCILLATORS**"H32" series 3.2x2.5x1.1 mm; Wave Form: Square wave****Logic: HCMOS****MERCURY**
Since 1973**H32 Package Dimensions and Recommended Pad Layout:**

unit mm[inches]



Chamfered pad is pad No. 1. Count counter-clockwise when looking at top view.
Count clockwise when looking at bottom view.

H32 Tape and Reel Dimensions

unit: mm

1000 pcs per reel

Reflow Soldering Condition