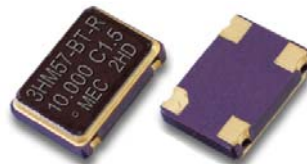


SMD CMOS output
7.0 x 5.0 x 1.4 mm

R group



RoHS Compliance

Features

- Ultra Small SMD seam sealed spread spectrum Low EMI clock crystal oscillator units.
- Tri-state function on pad No.1.

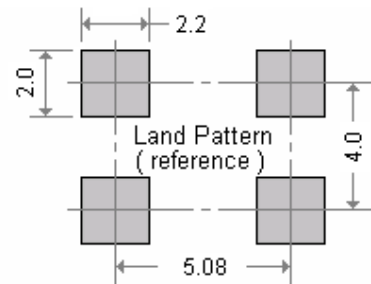
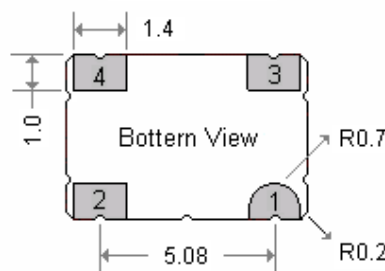
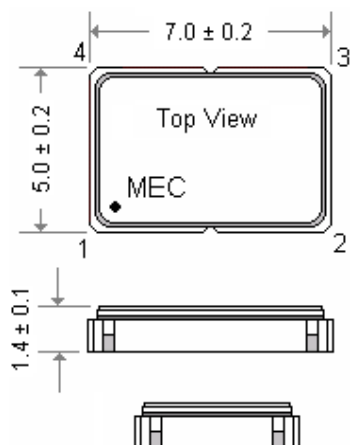
Applications

- Printers ; Multiple function printers (MPCs)
- Digital copiers; PDAs
- Networking; LAN / WAN; Routers
- Storage systems (CD-ROM, VCD, DVD and HDD)
- Scanner; Modems; projectors
- Embedded systems; Electrical musical instrument
- Automotive; GPS car navigation systems
- LCD PC monitors / LCD TVs
- ADSL; PCMCIA
- Still Digital cameras (SDCs)

General Specifications

Parameters		Electrical Spec.			
Input Voltage (V _{DD})		3.3 V D.C. ± 5 %			
Frequency Range		3.5 ~ 165.0 MHz			
Output Wave Form		CMOS output			
Characteristic Group		Mercury Group " R "			
Spread Type / Total Spread Percentage		Down Spread / - 1.0 %			
EMI Reduction (applies to the whole spectrum)		-9 dBc (min.) [100 MHz]			
Output Logic High " 1 "		2.4V (min.) ; 3.2V (typ.) [at 90% V _{DD}]			
Output Logic Low " 0 "		0.5V (max.) ; 0.2V (typ.) [at 10% V _{DD}]			
Output Load		15 pF			
Rise Time (Tr) / Fall Time (Tf)		4n sec. (max.) [10% V _{DD} ↔ 90% V _{DD}]			
Modulation Carrier Frequency (Dither rate)		6.9 KHz (min.) ; 55.5 KHz (max.) [Freq. dependent .]			
Duty Cycle		50% ± 5% [CL=15pF; at 50%VDD]			
Current Consumption	3.5 ~ 50.0 MHz	50.1 ~ 100.0 MHz	100.1 ~ 165.0 MHz		
	10 mA typ.	18 mA typ.	35 mA typ.		
Cycle - to - cycle Jitter		± 250 ps (typical) ; ± 300 ps (max.)			
Start - Up Time (Ts)		2.0 m sec.(typical) ; 5.0 m sec.(max.)			
Storage Temperature		- 65°C to 150°C			
Aging		± 5 ppm per year (max.) ; T = 25 °C			
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)



Package dimensions and suggested pad layout :

- Pad 1 : Tri-state (Enable / Disable)
- Pad 2 : Ground
- Pad 3 : Spread Spectrum clock output
- Pad 4 : Supply Voltage

Mercury www.mercury-crystal.com