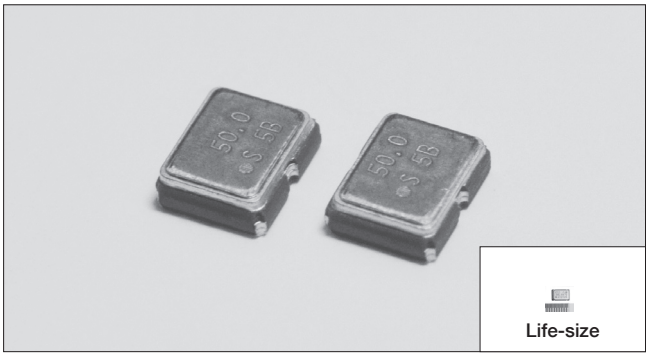
CITIZEN
Micro HumanTech

CRYSTAL CLOCK OSCILLATORS (SMD・Ceramic Package)

RoHS compliant / Pb free

CSX-252F SERIES

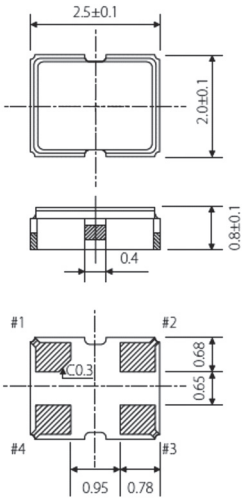
3,000pcs/reel



■ FEATURES

- Reflowable and high density mounting type small SMD package.
- Complete lead(Pb)-free product.
- Available for lead(Pb)-free soldering.
- Suitable for various applications such as PC, Communication equipment, AV equipment, OA equipment, Measuring instruments, etc.

■ DIMENSION [mm]

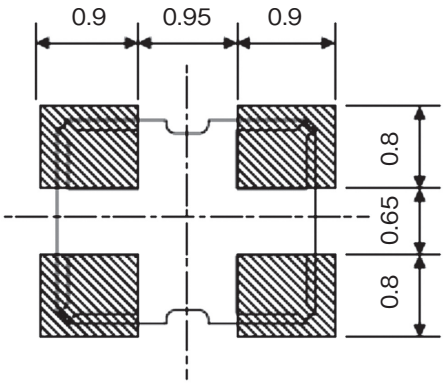


Terminal	Connection
#1	Tri-state
#2	GND
#3	OUTPUT
#4	Vdd

Tri-state Function

Tri-state Pin	Output
High or Floating	Active
Low	Hi-impedance

■ SOLDER PAD LAYOUT [mm]



■ STANDARD SPECIFICATIONS

Item \ Model	OE	CSX-252FM (*)	CSX-252FH (*)	CSX-252FJ (*)	CSX-252FA (*)
	STAND-BY				
Frequency Range		32.768kHz, 2.000MHz ～ 60.000MHz			
Supply Voltage		1.8V±5%	2.5V±5%	3.3V±0.3V	1.8V～3.3V
Frequency Stability	(*)	B：±50ppm(−20℃～+70℃), E：±50ppm(−40℃～+85℃)			
Operating Temperature Range		−20℃～+70℃ / (−40℃～+85℃)			
Storage Temperature Range		−45℃～+90℃			
Current consumption		2.5mA max：～30MHz	4.5mA max：～19MHz	6mA max：～19MHz	
		3.0mA max：～40MHz	5.5mA max：～40MHz	7mA max：～40MHz	
		3.5mA max：～60MHz	6.5mA max：～60MHz	8mA max：～60MHz	
Duty	TTL level (1.4V)	−			
	CMOS level (1/2 Vdd)	45% ～ 55%			
Output Voltage	V_{OH}	0.9Vdd Min.			
	V_{OL}	0.1Vdd Max.			
Output Load	TTL	−			
	CMOS	15pF Max.			
Rise and Fall Time CMOS (20%Vdd ⇔ 80%Vdd)		10nsec Max.			
Start-up time		10msec Max. (Time at minimum operating voltage to be 0sec.)			
Input Voltage (ST)	V_{IH}	0.7Vdd Min.			
	V_{IL}	0.2Vdd Max.			
Disable current		−			
Stand-by current		50 μA Max.			

http://cfd.citizen.co.jp/english/prod-tech/product/cvo_top.html