



**THE DATASHEET OF  
CFS-20632768EZBB**



## TUNING FORK CRYSTAL UNIT (Cylinder Type)

RoHS compliant / Pb free

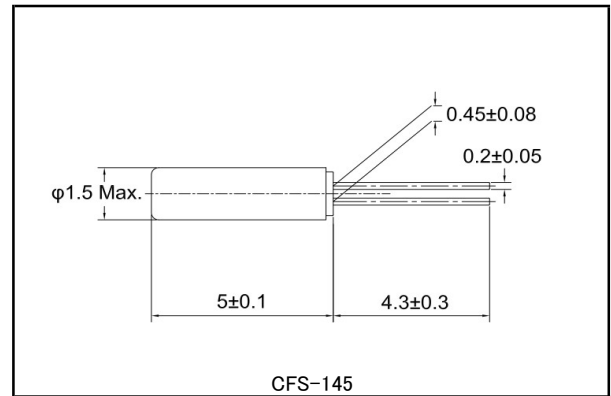
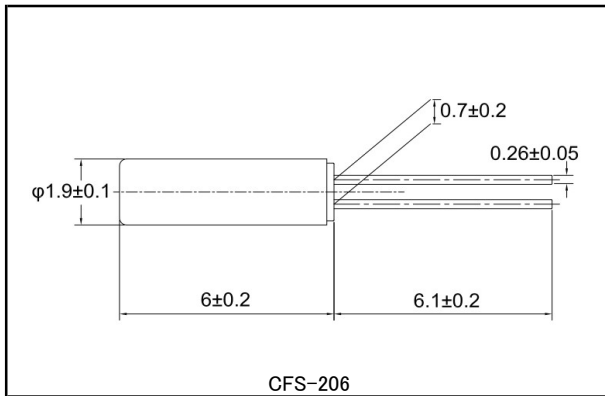
## CFS-206 · CFS-145



### ■ FEATURES

- Frequency range : 32.768kHz
- External dimensions (mm)  
CFS-206  $\Phi$  : 2.0 x L : 6.2  
CFS-145  $\Phi$  : 1.5 x L : 5.1
- Applications  
Watch / Clock / Security devices /  
Consumer products

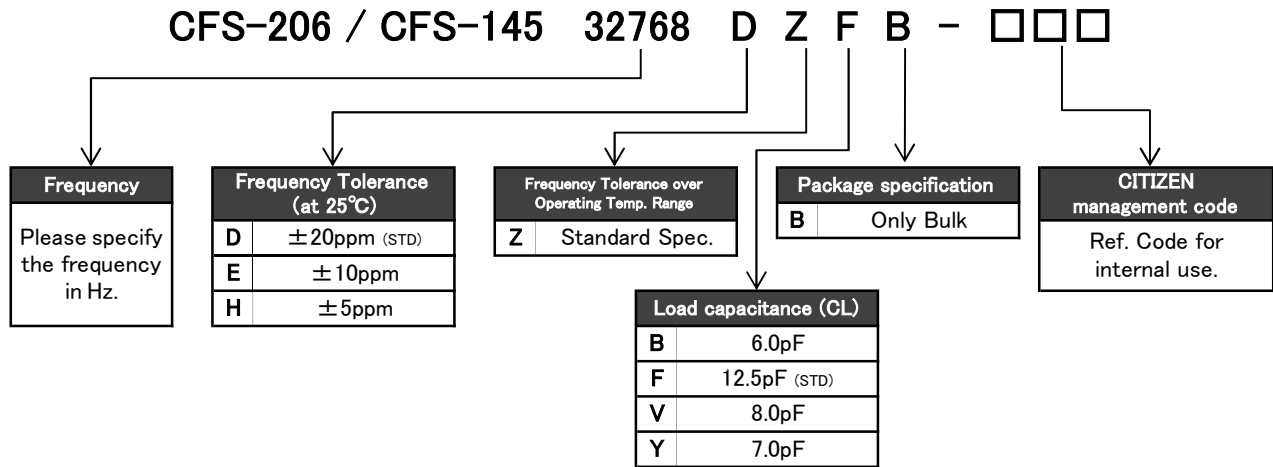
### ■ DIMENSION [mm]



### ■ STANDARD SPECIFICATIONS

Item	Model	CFS-206	CFS-145	Conditions
Nominal Frequency	$f_0$	32.768kHz		
Frequency Tolerance	$\Delta f/f_0$	$\pm 5\text{ppm} / \pm 10\text{ppm} / \pm 20\text{ppm}$		at 25°C
Load capacitance	$C_L$	6.0pF / 7.0pF / 8.0pF / 12.5pF		Please specify your requirement
Operating Temperature Range	$T_{OPR}$	-20°C ~ +70°C		
Storage Temperature Range	$T_{STR}$	-40°C ~ +85°C		
Turnover Temperature	$T_M$	25°C ± 5°C		
Temperature Coefficient	$\beta$	$-0.034 \pm 0.006\text{ppm}/\text{C}^2$		
Motional (series) resistance	$R_1$	35KΩ Max.	40KΩ Max.	at 25°C
Level of drive	$D_L$	1 μW Max.		
Aging (first year)	$\Delta f/f_0$	$\pm 3\text{ppm Max.}$		25°C ± 3°C
Shunt capacitance	$C_0$	1.2pF Typ.	1.0pF Typ.	

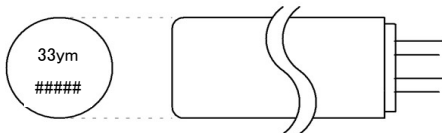
## ■ PART NUMBERING SYSTEM



\*Please contact us for specifications available.

## ■ Part Marking [standard]

**CFS-206**



33 : Manufacturer's ID Code

y : The last digit of production year

m : Production month (See Table.1)

# : Production Lot No.

Table.1

Month	Jan	Feb	...	Sep	Oct	Nov	Dec
Code	1	2	...	9	X	Y	Z

**CFS-145**



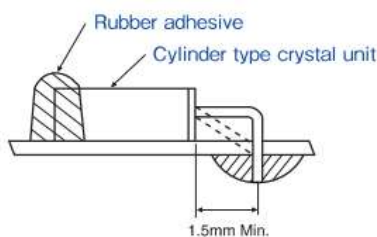
No marking

## ■ Handling Notes

### Mounting

Soldering the body of cylinder type crystal unit must be strictly avoided as it may cause significant deterioration in characteristics of the product.

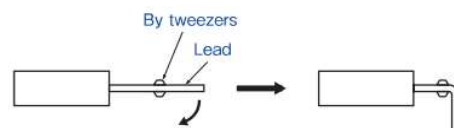
Rubber adhesive is recommended for mounting.



### Bending Lead

Hold the body of crystal unit by hand, and the part to be bent with tweezers leaving more than 1.5mm of lead from the body case. (3.0mm is recommended)

Bend the lead 90° holding with the tweezers. Pulling the lead strongly may crack the hermetic seal glass at the root of the lead and may cause the airtightness and the characteristics to deteriorate.



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View CFS-20632768EZBB on WIN SOURCE](#)
- ⊖ [Citizen Finedevice Co Ltd Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

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- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management