



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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TUNING FORK CRYSTAL UNIT (Cylinder Type)

RoHS compliant / Pb free

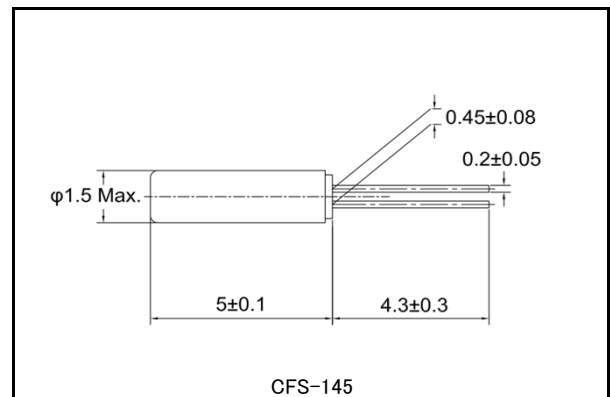
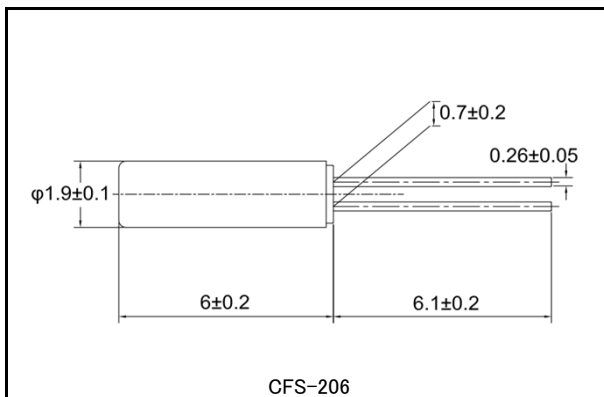
CFS-206 · CFS-145



■ FEATURES

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

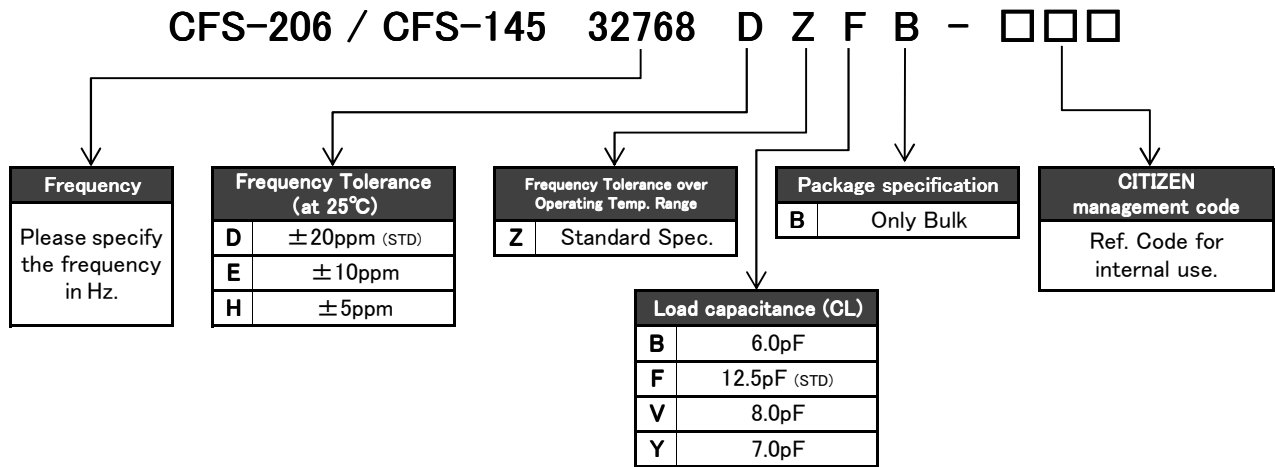
■ DIMENSION [mm]



■ 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	β	$-0.034 \pm 0.006\text{ppm}/^\circ\text{C}^2$		
Motional (series) resistance	R_1	35K Ω Max.	40K Ω Max.	at 25°C
Level of drive	DL	1 μ W 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.	

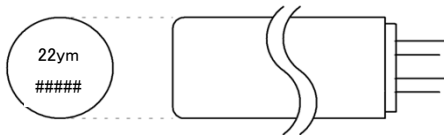
■ PART NUMBERING SYSTEM



*Please contact us for specifications available.

■ Part Marking [standard]

CFS-206

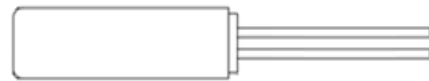


- 22 : Manufacture's ID Code
- y : The last digit of production year
- m : Production month (See Table.1)
- # : Production Lot No.

Table.1

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

CFS-145



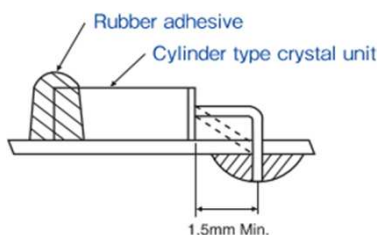
No marking

■ 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.

