Tuning Fork Crystal Resonator

TF206 / TF308

Feature

- Miniature Cylindrical Tuning Fork Crystals
- Package Size：Φ2.0 x 6.0 mm/Φ3.0 x 8.0 mm
- Low Aging, Low Power Consumption, High Shock
- RoHS Compliant / Pb Free

Applications

- Real Time Clock
- Consumer Devices
- Portable Electronics
- Time Display Devices



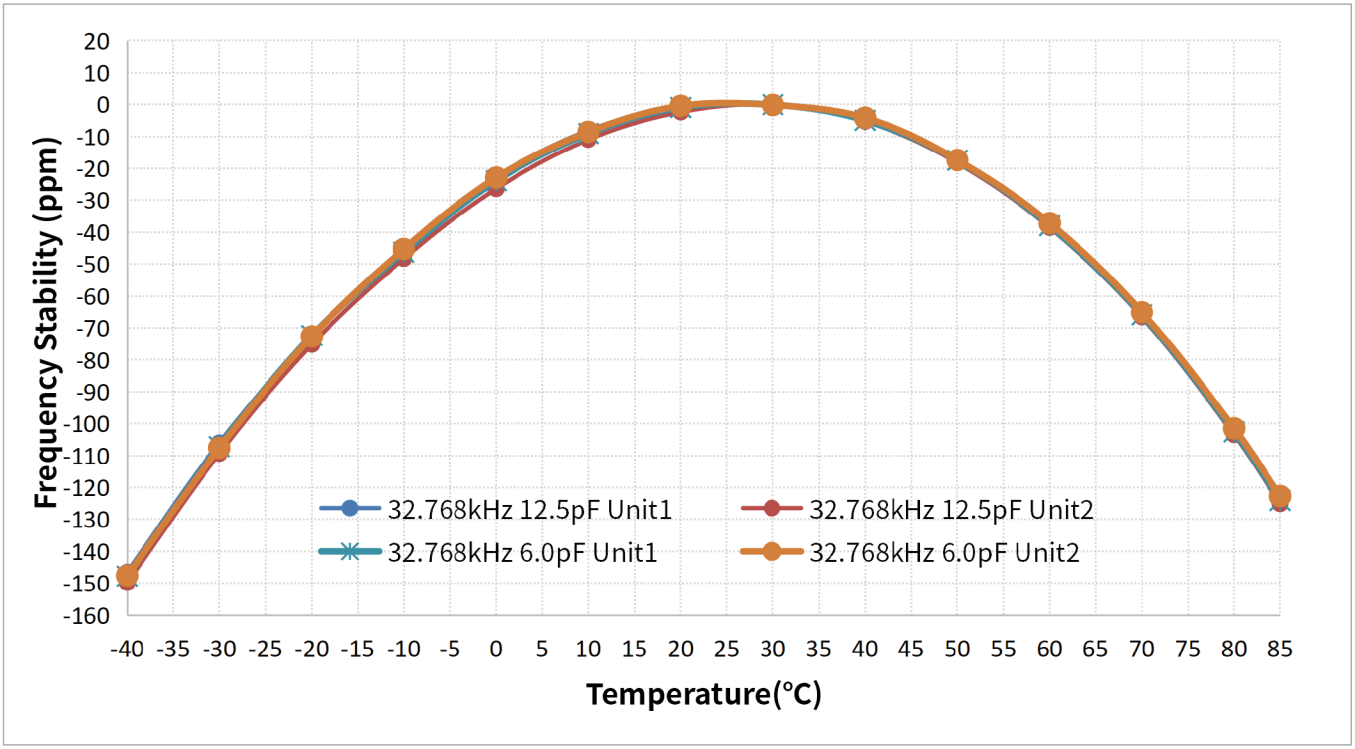
Electrical Specifications

Item	Symb.	Min.	Typ.	Max.	Unit	Notes
Nominal Frequency	Freq.		32.768		kHz	
Operating Temperature	T_use	-20	—	+70	°C	
Storage Temperature Range	T_stg	-40	—	+85	°C	
Frequency Tolerance	f_tol	-20	—	+20	ppm	at 25°C±3°C
Turnover Temperature	Ti	+20	+25	+30	°C	
Parabolic curvature constant	B	—	—	-0.042	ppm/(△°C)^2	Over Operating Temp. Range (Reference 25°C)
Drive Level	DL	—	—	1	μW	
Load Capacitance	CL		6, 7, 9, 12.5		pF	
Effective Resistance	Rr	—	—	30	kΩ	
Shunt Capacitance	C0	—	—	3	pF	
Aging	f_age	-3	—	3	ppm	1st. Year at 25°C

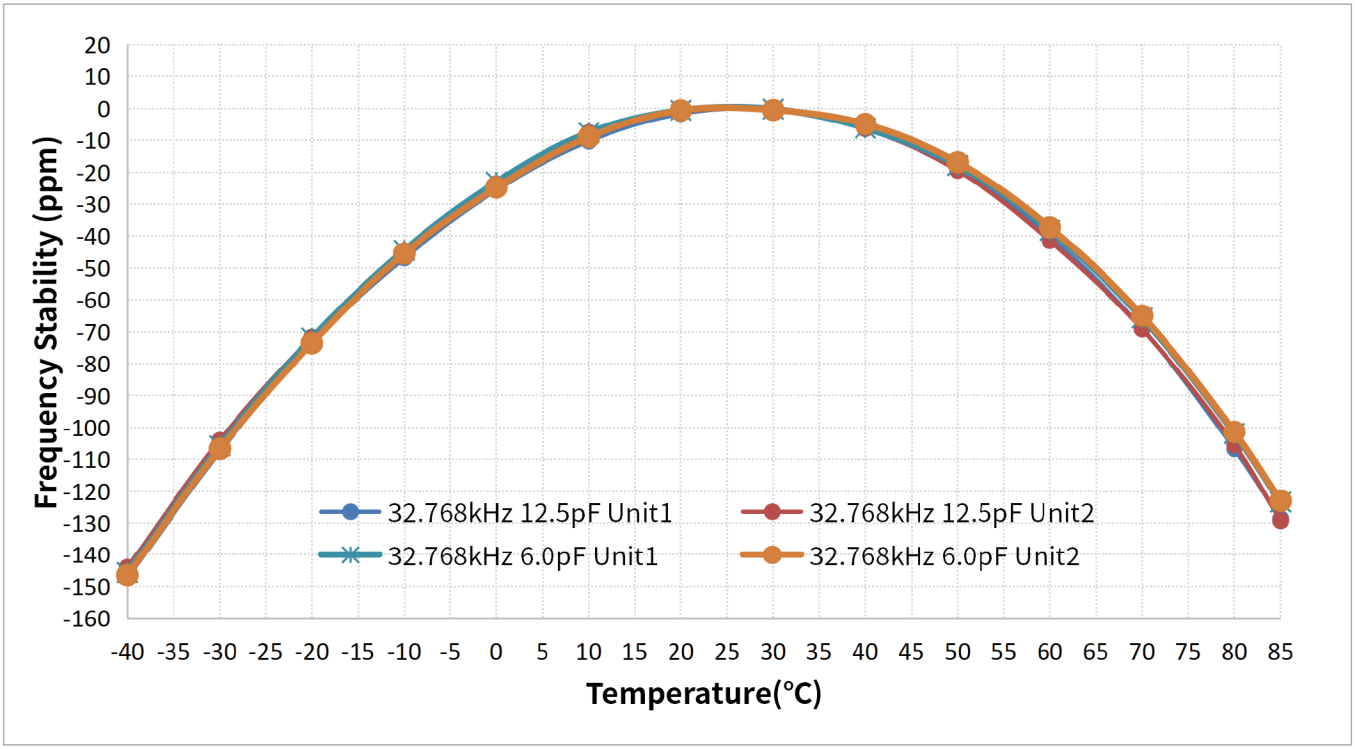
TEL:0755-86097105 E-mail:sales@sctf-crystal.com Web:www.sctf-crystal.com
Add:10th Floor, T2 Building, Fangda City, Longzhu Fourth Road, Nanshan District, Shenzhen, China
Revision: 11/24/2026

Electrical Specifications Cont.

- Table 1: Frequency Stability VS. Temperature [TF206]



- Table 2: Frequency Stability VS. Temperature [TF308]



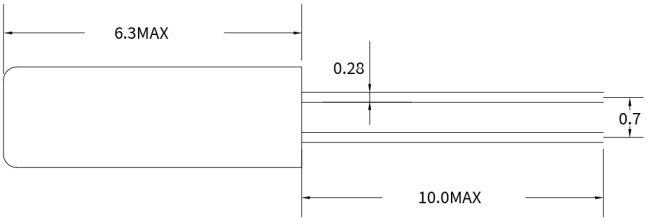
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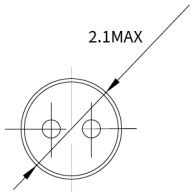
Dimensions (UNIT:mm)

● TF206 Series

● SIDE VIEW

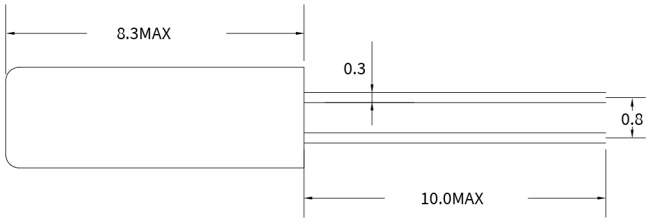


● BOTTOM VIEW

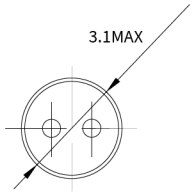


● TF308 Series

● SIDE VIEW



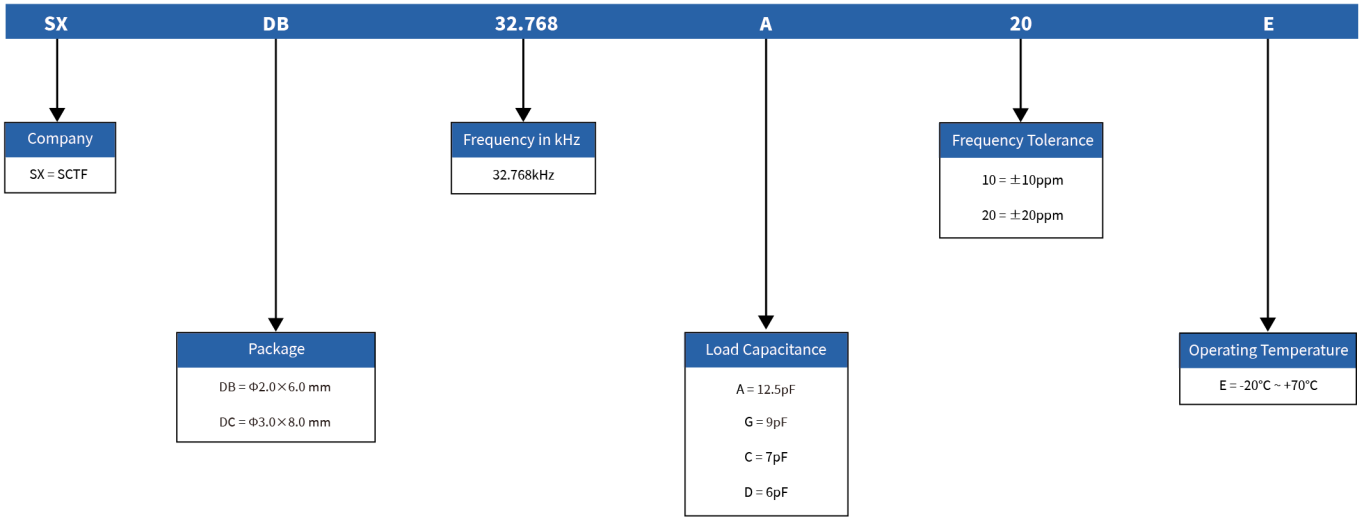
● BOTTOM VIEW



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Options and Part Identification



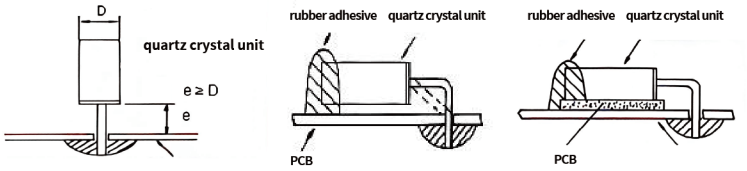
List of available part numbers

Part NO#			
SXDB32.768A10E	SXDB32.768G10E	SXDB32.768C10E	SXDB32.768D10E
SXDC32.768A10E	SXDC32.768G10E	SXDC32.768C10E	SXDC32.768D10E

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Processing Instructions

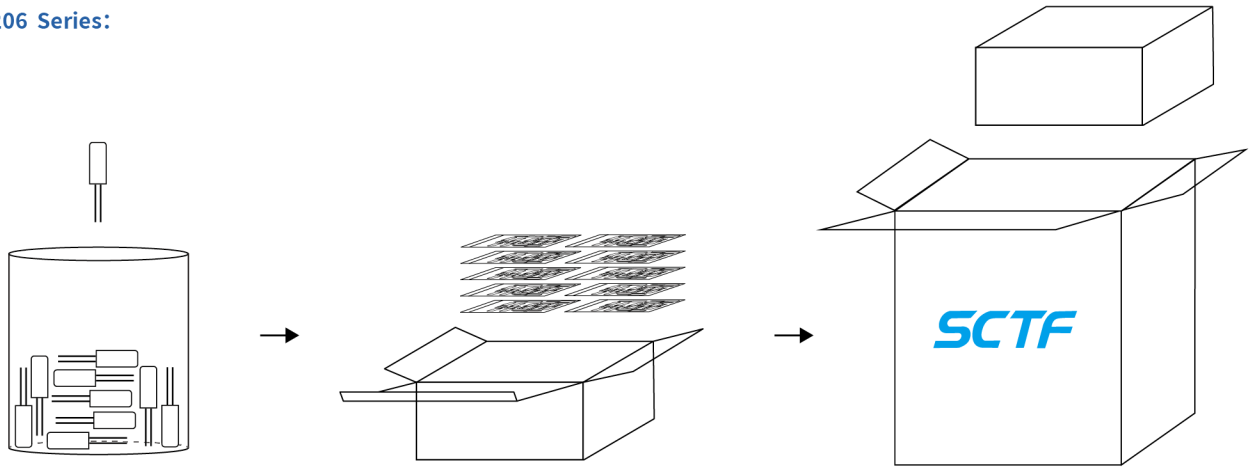
NO.	Process	Instructions
1	When dropped by mistake	The crystal units are designed and manufactured to resist physical shocks.However,when the crystal units are subjected to excessive impact such as being dropped onto the floor or giving shocks during processing,need to make sure its satisfactory performance before using it.
2	Soldering	a. Lead wires should be soldered within 3 seconds with the soldering iron heated to a temperature no higher than 380°C. b. In solder-dip processing,the leads should be soldered within 5 seconds with a temperature no higher than 260°C. Mounting in upright is recommendable to prevent the heat conduction directly to the body of the crystal unit.
3	To bend the lead of cylinder type products	① When the lead of cylinder type crystal units need to be bent,leave more than 1.5mm (3.0mm is recommendable) of lead from the case in order to prevent from any cracks of the hermetic sealing glass at the root of the lead,and use a jig to bend if possible. ② When bending the lead of cylinder type crystal units,do not scrape off the soldering plating from the lead surface.
4	Mounting of cylinder type products	① Soldering the body of the cylinder type crystal units with PCB must be avoided due to deteriorate the characteristics or damage the products. Rubber adhesive is recommended.  ② When the lead needs to be bent by hand,please follow the instruction as below: Hold the body of the cylinder type crystal unit in fingers; Pick at the part with tweezer,which you want to bend.There should be more than 1.5mm(3.0mm is recommended) from the body case; Bend the lead 90°by tweezer without pulling the lead strongly.If pulling the lead strongly may cause any cracks of hermetic sealing glass at the root of the lead and may cause the leakage and the characteristics to deteriorate.
5	Cleaning	① Crystal units may be sffected and destroyed at worst by supersonic cleaning or supersonic welding.Please be sure to check if your cleaning and welding process sffects any damage to crystal units before using. ② Some kinds of cleaning fluid may cause any damage to crystal units.Please be sure to check suitability of the cleaning fluid in advance.

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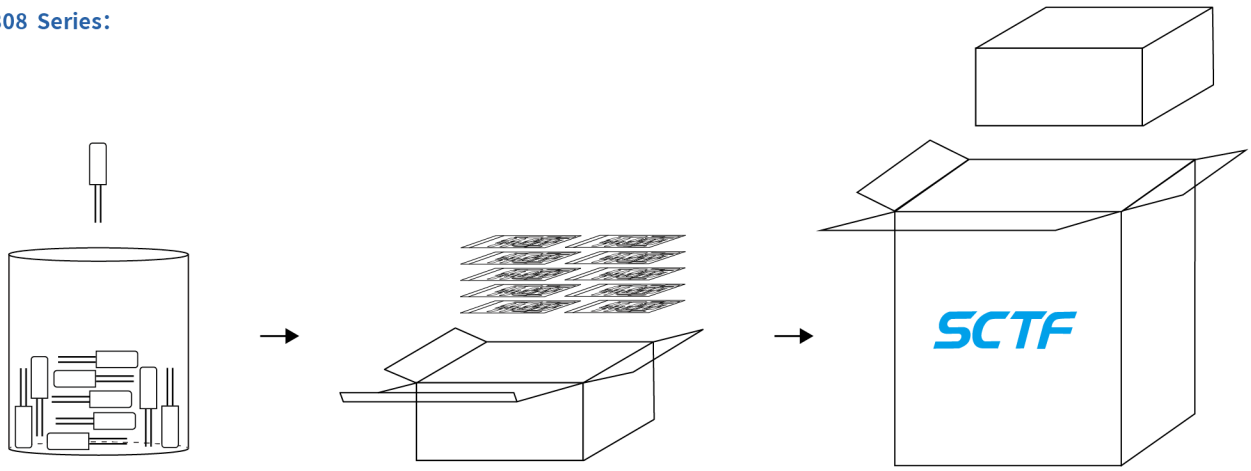
Package

- TF206 Series:



- 1000 pcs/bag
- 10 bags/box
- 10000 pcs/box
- 5 boxs/small carton
- 50000 pcs/carton
- 10 boxs/big carton
- 100000 pcs/carton

- TF308 Series:



- 1000 pcs/bag
- 10 bags/box
- 10000 pcs/box
- 5 boxs/small carton
- 50000 pcs/carton
- 10 boxs/big carton
- 100000 pcs/carton