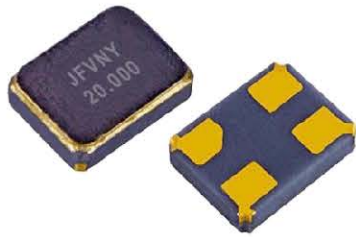


# X25F



### Description:

- Small Volume
- Audio Visual Equipment
- High Precision
- Bluetooth
- Ceramic Package
- Internet
- Dribbling Packaging
- Industrial Control
- Reflow Welding

### Performance Characteristics

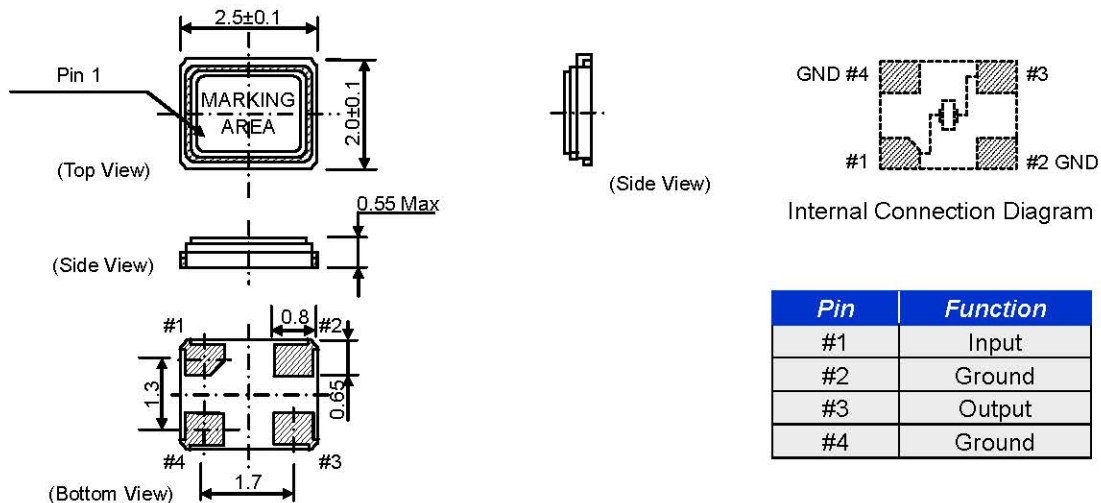
Parameter		X25F
Frequency Range (KHz)	F <sub>0</sub>	12.000~54.000
Vibration Mode	Mode	AT Fundamental
Resonance Resistance (Ω)	R <sub>r</sub>	See Equivalent Resistance Comparison Table
Frequency Tolerance (25°C)	F <sub>tol</sub>	±5×10 <sup>-6</sup> ~±30×10 <sup>-6</sup>
Storage Temperature	T <sub>stg</sub>	-55°C~+125°C
Static Capacity	C <sub>0</sub>	7pF Max.
Load Capacitance	CL	6pF~30pF or Cascade
Insulation Resistance	IR	>500MΩ DC/100V±10V
Driving Power	DL	0.01mW~0.1mW
Frequency Aging	F <sub>age</sub>	±3×10 <sup>-6</sup> /Year Max.

### Frequency Temperature Stability Table

Temperature Range	Frequency Stability					
	O:±10×10 <sup>-6</sup>	P:±15×10 <sup>-6</sup>	Q:±20×10 <sup>-6</sup>	S:±30×10 <sup>-6</sup>	T:±50×10 <sup>-6</sup>	U:±100×10 <sup>-6</sup>
B: -10°C ~ +60°C	●	●	●	●	●	●
C: -20°C ~ +70°C	●	●	●	●	●	●
ΔG: -40°C ~ +85°C			●	●	●	●
∇Q: -40°C ~ +125°C					⊙	⊙
★ J: -55°C ~ +125°C						⊙

●: Optional    ⊙: Customized    Δ: Industrial    ∇: Automotive    ★: Military Products

### Outline Drawing (mm)



### Crystal Units Ordering Informationg

<b>HC-49U</b>	—	<b>C</b>	<b>20</b>	<b>S</b>	<b>S</b>	<b>A</b>	—	<b>1.8432</b>
Package	Operating Temperature range	Load Capacitance	Frequency Tolerance (25°C)	Frequency Stability	Vibration Stbility	Nominal Frequency (MHz)		
HC-33U	A=0°C~+50°C	00= Cascade	N=±5×10 <sup>-6</sup>	N=±5×10 <sup>-6</sup>	A=AT-Fund	Please enter the nominal frequency		
HC-49U	B=-10°C~+60°C	06=6.0pF	O=±10×10 <sup>-6</sup>	O=±10×10 <sup>-6</sup>	B=BT-Fund			
HC-49UX	C=-20°C~+70°C	08=8.0pF	P=±15×10 <sup>-6</sup>	P=±15×10 <sup>-6</sup>	D=DT Cut			
HC-49H	G=-40°C~+85°C	09=9.0pF	Q=±20×10 <sup>-6</sup>	Q=±20×10 <sup>-6</sup>	N=NT Cut			
HC-49S	Q=-40°C~+125°C	10=10pF	S=±30×10 <sup>-6</sup>	S=±30×10 <sup>-6</sup>	X=X Cut			
HC-49SU	H=-55°C~+85°C	12=12pF	T=±50×10 <sup>-6</sup>	T=±50×10 <sup>-6</sup>	TA=AT-3 <sup>RD</sup>			
HC-49SN	J=-55°C~+125°C	16=16pF		U=±100×10 <sup>-6</sup>	FA=AT-5 <sup>TH</sup>			
HC-49SA		18=18pF			SA=AT-7 <sup>TH</sup>			
HC-49SB		20=20pF						
HC-49XA		30=30pF						
HC-49XB		These are the normal load capacitance values.	If there are special requirements can choose high precision.	Temperature stability is selected according to the corresponding description page.	The vibration mode can be selected according to the corresponding description page.		Select according to the optional frequency range of the corresponding description page	
X16F	Special requirements can be selected according to the temperature range and temperature stability.	Note: calculate the value of load capacitance according to the actual application circuit (see instructions for calculation).						
X21F								
X25F								
X32F								
X53F								
X53T								
X63F								
X75F								
UM-1								
UM-5								

<b>DT-26</b>	—	<b>C</b>	<b>06</b>	<b>Q</b>	—	<b>32.768</b>
Package	Operating Tempereare range	Load Capacitance	Frequency Tolerance (25°C)	Nominal Frequency (KHz)		
DT-26	A=0°C~+50°C	06=6.0pF	N=±5×10 <sup>-6</sup>	Please enter The nominal frequency		
DT-38	B=-10°C~+60°C	12=12.5pF	O=±10×10 <sup>-6</sup>			
FC12	C=-20°C~+70°C		P=±15×10 <sup>-6</sup>			
FC135	G=-40°C~+85°C		Q=±20×10 <sup>-6</sup>			
SSP-T7						
MC306						