

XF / XH / XG Type Crystal

RoHS Compliant Optional

FEATURE

XF

- Typical 10.82x4.47x12.86 mm standard package.
- Low cost.
- Tight specifications available.
- Packing: 200/500pcs plastic bag, 1000pcs Ammopack.



XH

- Typical 8.0x3.5x8.0 mm standard miniature package.
- Low cost.
- Fundamental mode up to 50MHz available.
- Tight specifications available.
- Packing: 200/500pcs plastic bag.



XG

- Typical 8.0x3.5x6.0 mm standard miniature package.
- Fundamental mode up to 52MHz available.
- Tight specifications available.
- Packing: 200/500pcs plastic bag.



ORDERING INFORMATION

X	?	B	B	B	I	N	A	N	F	-	?
X'tal	Package	Load Capacitance (pF)	Freq. Tol. at 25°C (ppm)	Freq. Stability (ppm)	Temp. Range (°C)	Special Requirement	Oscillator Mode	Appearance	Lead Free	Dash	Freq. (MHz)
F:49U H:UM1 G:UM5		A: 8 B: 9 C: 10 D: 12 F: 16 G: 18 H: 20 J: 32 S: Series	A:± 5 B:± 10 C:± 20 E:± 30 G:± 50 H:±100	A:± 5 B:± 10 P:± 15 C:± 20 E:± 30 G:± 50 H:±100	I: -10~+60 C: -20~+70 L: -40~+85	B:Spurious D:DLD H:High C1 L:Low C1 N:No Special P:Pullability Q:Q Value S:Several	A:AT Fundamental T:AT 3 rd Overtone F:AT 5 th Overtone S:AT 7 th Overtone	I:Insulator N:Normal S:Lead Cut (by Customer Request) H: Insulator & Lead Cut	F:RoHS Compliant L:Not RoHS Compliant		xx.xxxxxx

* If you have special requirement or the requirement of appearance, please provide detail data to us.

EQUIVALENT SERIES RESISTANCE(ESR)

TYPE FREQUENCY	MODE	XH/XG	XF	TYPE FREQUENCY	MODE	XH/XG	XF
1.8MHz ≤ Freq < 2MHz	A1	—	1000 Ω	6MHz ≤ Freq < 7MHz	A1	—	30 Ω
2MHz ≤ Freq < 2.45MHz	A1	—	350 Ω	7MHz ≤ Freq < 11.5MHz	A1	—	25 Ω
2.45MHz ≤ Freq < 3MHz	A1	—	150 Ω	11.5MHz ≤ Freq < 13MHz	A1	45 Ω	20 Ω
3MHz ≤ Freq < 3.5MHz	A1	—	100 Ω	13MHz ≤ Freq < 50MHz	A1	45 Ω	20 Ω
3.5MHz ≤ Freq < 4MHz	A1	—	85 Ω	25MHz ≤ Freq < 48MHz	A3	50 Ω	50 Ω
4MHz ≤ Freq < 4.4MHz	A1	—	75 Ω	48MHz ≤ Freq < 100MHz	A3	40 Ω	40 Ω
4.4MHz ≤ Freq < 5MHz	A1	—	50 Ω	75MHz ≤ Freq < 125MHz	A5	100 Ω	70 Ω
5MHz ≤ Freq < 6MHz	A1	—	45 Ω	125MHz ≤ Freq < 180MHz	A7	120 Ω	120 Ω

FREQ. TORLANCE vs. LOAD CAPACITANCE

Load Capacitance	ppm	A: ±5	B: ±10	P: ±15	C: ±20	D: ±25
A	8pF	X	X			
C	10pF	X	X			
D	12pF	X				
F	16pF	X				
S	Series					

:Standard :Available (case by case) × :Not available

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	A: ±5	B: ±10	P: ±15	C: ±20	D: ±25
I	-10 to +60	X				
C	-20 to +70	X				
L	-40 to +85	X	X	X		

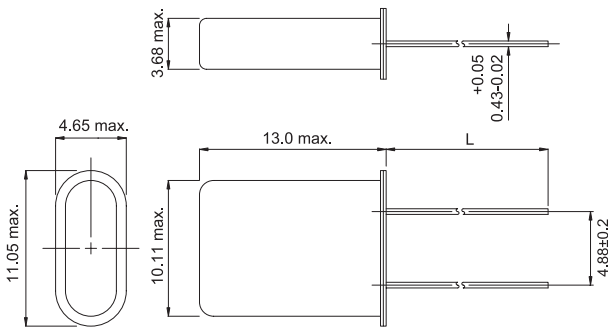
:Standard :Available (case by case) × :Not available

ELECTRICAL SPECIFICATION

Storage Temp. Range	-50°C ~ 125°C
Drive Level	10 μW → 5mW typical
Shunt Capacitance (Co)	7.0 pF Max.
Insulation Resistance	500M Min. @ DC 100V
Aging	First year ± 5ppm

OUTLINE DRAWING

XF



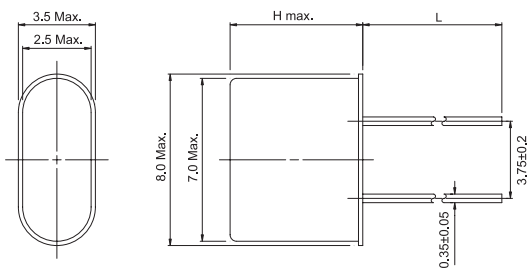
Recommended soldering pattern

No.	L
1	13.2±1
2	20.0±1
3	Refer to specifications sheet.

UNIT : mm

MARK	
1	MARK1: XX.XXX ⬆️ A XX.XXX = FREQ. ⬆️ LOGO A PRODUCTION LINE
2	MARK2: XX.XXX ⬆️ YYWW A XX.XXX = FREQ. ⬆️ LOGO A PRODUCTION LINE
3	MARK BY CUSTOMER

XH / XG



Recommended soldering pattern

MODEL	H(Max.)
XH	8.05
XG	6.00

No.	L
1	13.2 ± 1
2	20.0 ± 1
3	Refer to specifications sheet.

UNIT:mm