

# XS Type

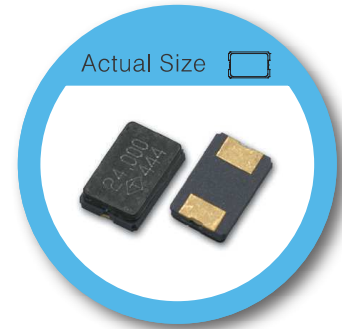
## 5.0 x 3.2 mm Glass Seal SMD Crystal

### FEATURE

- Typical 5.0 x 3.2 x 1.2 mm full ceramic SMD package.
- 12 mm width Tape & Reel package for automatic assembly.

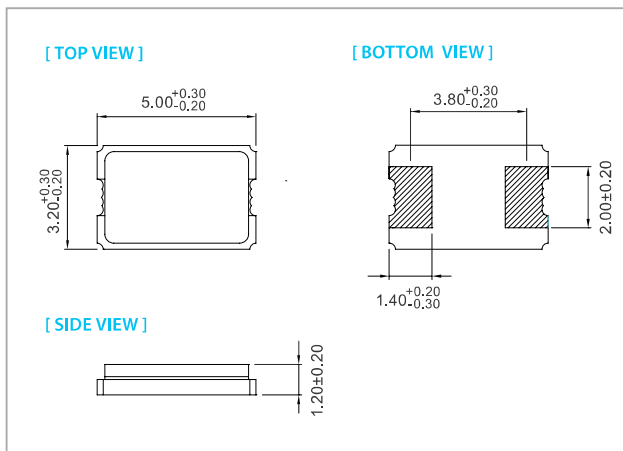
### TYPICAL APPLICATION

- Automotive
- Notebook, Computer Peripherals, Hard Disk
- MP3 Player, Audio & Visual

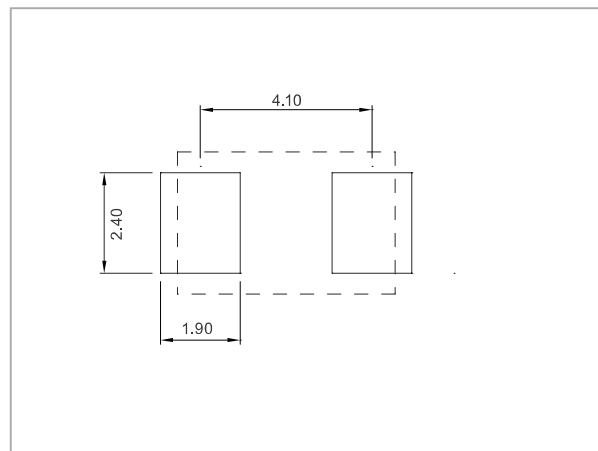


**RoHS Compliant**

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### ELECTRICAL SPECIFICATION

Parameter	Min.	Typical	Max.	Unit
Storage Temp. Range	-55	-	125	°C
Level of Drive	-	10	300	μw
Shunt Capacitance(C <sub>0</sub> )	-	-	7.0	pF
Insulation Resistance	500 MΩ @ DC100V	-	-	
Aging		±3.0		ppm / year

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

### EQUIVALENT SERIES RESISTANCE (E.S.R)

Frequency Range	MODE	E.S.R
8 MHz ≤ F <sub>o</sub> < 10 MHz	A1	<180Ω
10 MHz ≤ F <sub>o</sub> < 16 MHz	A1	<150Ω
16 MHz ≤ F <sub>o</sub> < 20 MHz	A1	<100Ω
20 MHz ≤ F <sub>o</sub> < 30 MHz	A1	<70Ω
30 MHz ≤ F <sub>o</sub> ≤ 54 MHz	A1	<50Ω

### FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm			
	±5	±10	±15	±20
-10 ~ +60	△	○	○	○
-20 ~ +70	×	△	○	○
-40 ~ +85	×	△	○	○

\* ○: Available △:Conditional X: Not available

### FREQ. STABILITY vs. WIDE TEMP. RANGE

Temp.(°C)	ppm			
	±15	±20	±30	±50
-40 ~ +105	△	○	○	○
-40 ~ +125	×	×	△	○

\* ○: Available △:Conditional X: Not available

**Note: not all combination of options are available. Other specifications may be available upon request.**