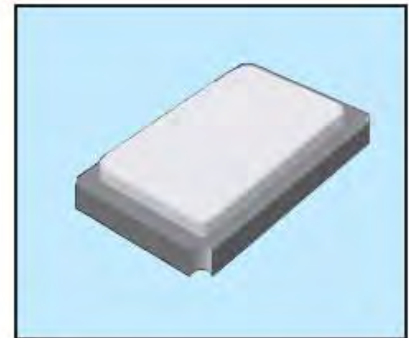


FEATURES

- * 1.1 mm height
- * Wide frequency range availability
- * Excellent aging characteristics
- * High frequency fundamental capability
- * Ultra miniature design
- * Tape & Reel (1,000 pcs)

The ISX-6X3.5S delivers unmatched frequency stability with a frequency range from 8MHz to 100MHz with an operating temperature of -10 °to +70°C. Aging characteristics are exceptional utilizing advanced cold-sealing processes with a ceramic housing/metal cover. These specifications along with a dimensional height of only 1.1mm make this SMD crystal the perfect choice for compact wireless communication applications.



OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE		8.0		100.000	MHz
CALIBRATION TOLERANCE	@ +25°C	-30		+30	PPM
FREQUENCY STABILITY _{ref@25°C}	-10 ~+70°C	-50	See Table 1	+50	PPM
SHUNT CAPACITANCE	C ₀			7.0	pF
LOAD CAPACITANCE	C _L (Customer Specified)	10.0	20.0 standard	Series	pF
DRIVE LEVEL	DL			100	μW
OPERATING TEMPERATURE	T _{OPR}	-10		+70	°C
STORAGE TEMPERATURE	T _{STG}	-40		+85	°C
AGING CHARACTERISTICS (Per YEAR)	@ +25°C	-2.0		+2.0	PPM

EQUIVALENT SERIES RESISTANCE / MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE	MAX ESR(Ω)	FREQUENCY RANGE (MHz)	MODE	MAX ESR(Ω)
8.000 ~ 11.999	Fundamental	100	14.000 ~ 49.999	Fundamental	40
12.000 ~ 13.999	Fundamental	60	40.000 ~ 100.000	3rd O/T	60

PACKAGE DIMENSIONS (mm)

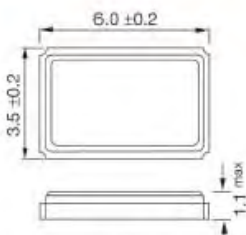


Figure 1) ECX-64 - Top and Side views

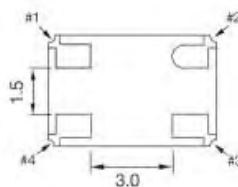


Figure 2) Land Pattern - Bottom view

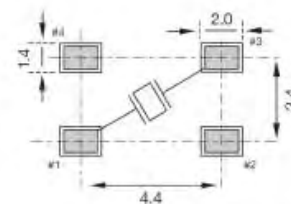


Figure 3) Recommended Solder Pad Layout - Top view

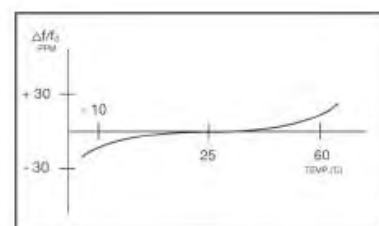


Figure 4) Frequency vs Temperature Curve

FEATURES

- * Compact and low profile
- * Glass sealed ceramic package
- * Tape & Reel (1,000 pcs)

The ISX-6X3.5G are subminiature SMD crystals with 3.5 X 6 mm footprint. This cost effective all ceramic package is available in 2 and 4 pad versions. The package height measures 1.1 mm max. which is ideal for densely populated PCB applications.



OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
FREQUENCY RANGE		12.000		100.00	MHz
CALIBRATION TOLERANCE	@ +25°C			±30*	PPM
FREQUENCY STABILITY _{ref@25°C}	-10 ~+70°C			±50*	PPM
SHUNT CAPACITANCE				7	pF
LOAD CAPACITANCE	C _L (Customer Specified)	10	16.0 standard	Series	pF
DRIVE LEVEL	DL			100	μW
OPERATING TEMPERATURE	T _{OPR}	-10		+70	°C
STORAGE TEMPERATURE	T _{STG}	-40		+85	°C
AGING CHARACTERISTICS (Per YEAR)	@ +25°C ±3°C per year			±5	PPM

* Tighter specifications are available. **Extended temperature range available.

EQUIVALENT SERIES RESISTANCE / MODE OF OSCILLATION

FREQUENCY RANGE (MHz)	MODE	MAX ESR(Ω)	FREQUENCY RANGE (MHz)	MODE	MAX ESR(Ω)
12.000 ~ 13.999	Fundamental	60	35.000 ~ 39.999	3rd O/T	100
14.000 ~ 40.000	Fundamental	40	40.000 ~ 100.000	3rd O/T	60

PACKAGE DIMENSIONS (mm)

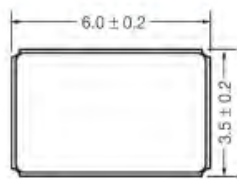


Figure 1) Top and side views

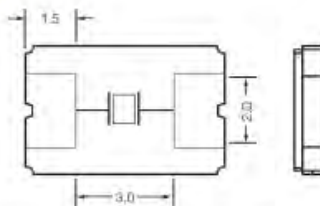


Figure 2) 2 - Pad Configuration Bottom and End views

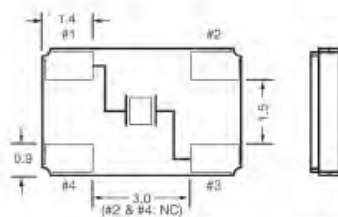


Figure 3) 4 - Pad Configuration Bottom and End views

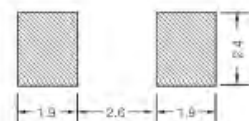


Figure 4) Recommended Solder Pad Layout

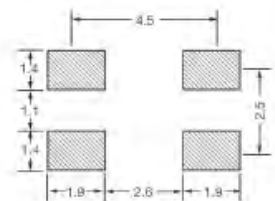


Figure 5) Recommended Solder Pad Layout