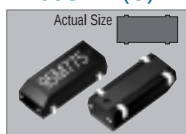
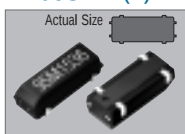


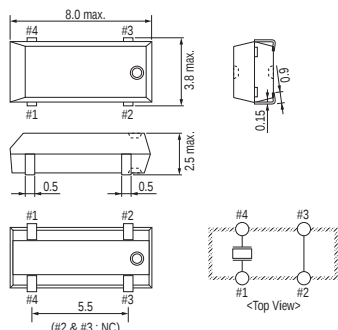
95SMX (G)



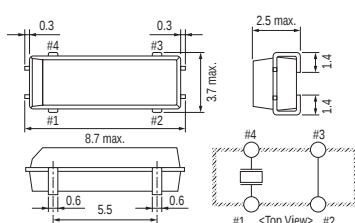
95SMX (T)



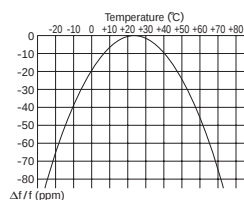
95SMX (G)



95SMX (T)

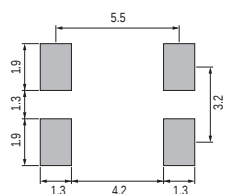


X-CUT

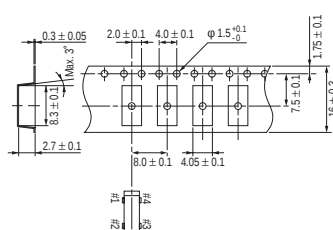


TYPICAL TEMPERATURE CHARACTERISTICS

SOLDERING PATTERN



TAPE SPECIFICATIONS



3000pcs. per reel (330mm dia.)

STANDARD SPECIFICATIONS

Frequency range	F	30.000 kHz to 150.000 kHz	150.000 kHz to 615.000 kHz
Package type		95SMX(G)	95SMX(T)
Frequency tolerance at +25°C	Δ f/F	C: ± 30 ppm D: ± 50 ppm E: ± 100 ppm	E: ± 100 ppm F: ± 500 ppm G: ± 1000 ppm
Load capacitance	CL	12.5 pF, Typical	12.5 pF, Typical
Equivalent series resistance	Rs	50 kΩ max.	50 kΩ max.
Drive level	P	1.0 μW max.	1.0 μW max.
Quality factor	Q	50000 min.	50000 min.
Turnover temperature	Tt	+25°C, Typical	+25°C, Typical
Temperature coefficient	β	-0.034 ppm/°C², Typical	-0.035 ppm/°C², Typical
Shunt capacitance	Co	0.7 pF to 1.8 pF	0.5 pF to 1.7 pF
Motional capacitance	C1	0.001 pF to 0.004 pF	0.001 pF to 0.004 pF
Capacitance ratio	Y	425 to 800	425 to 800
Aging (for first year)	Δ f/F	± 5 ppm max. at +25°C ± 3°C	± 5 ppm max. at +25°C ± 3°C
Insulation resistance	IR	500 MΩ min. at 100V DC ± 15V	500 MΩ min. at 100V DC ± 15V
Cut		X-Cut	X-Cut
Operating temperature range	To	-40°C to +85°C	-40°C to +85°C
Storage temperature range	Ts	-55°C to +125°C	-55°C to +125°C
Shock	Δ f/F	± 5 ppm max.	± 5 ppm max.
Vibration	Δ f/F	± 5 ppm max.	± 5 ppm max.
Reflow soldering condition		10 seconds max. at +235°C ± 5°C	10 seconds max. at +230°C max.

PART NUMBERING GUIDE

Package Type	95	M	775	-	12.5	D	Frequency Tolerance
Circuit Calibration Condition							Load Capacitance (CL)
							Frequency Designator

EXAMPLE

CIRCUIT CALIBRATION CONDITION	FREQUENCY	FREQUENCY TOLERANCE	SMI PART NO.
Parallel Resonance = M CL = 12.5 pF	775 = 77.500 KHz	D = ± 50 ppm	95M775-12.5D
Series Resonance = S (Optional)	775 = 77.500 KHz	E = ± 100 ppm	95S775E

HOW TO ORDER STANDARD SMI CRYSTALS

Order by SMI Part No.

PACKAGE DATA

Item	Package	95SMX (G)	95SMX (T)
OUTER PACKAGE		Plastic	Plastic
SEALING		Press-fit (2x6mm built-in)	Press-fit (2x6mm built-in)
TERMINAL PLATING		Solder	Solder

95SMX STANDARD FREQUENCIES

FREQUENCY kHz	FREQUENCY DESIGNATOR	FREQUENCY kHz	FREQUENCY DESIGNATOR	FREQUENCY kHz	FREQUENCY DESIGNATOR
32.000	320	76.800	768	150.000	150.0
38.000	380	77.500	775	153.600	153.6
40.000	400	77.503	77503	200.000	200.0
44.100	441	77.505	77505	307.200	307.2
60.000	600	96.000	960	614.400	614.4
75.000	750	100.000	100.0		