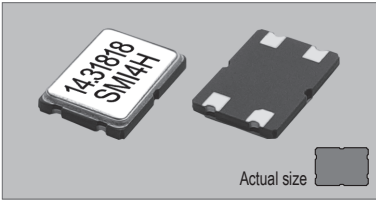
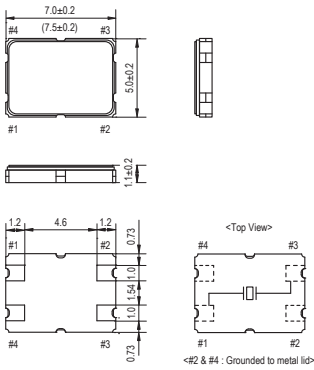


94SMX(B)

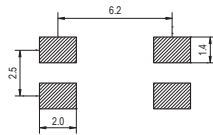


Actual size 0.1213 gm (wt)

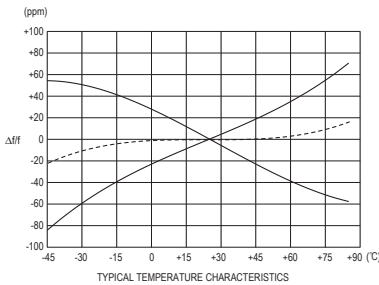
94SMX(B)



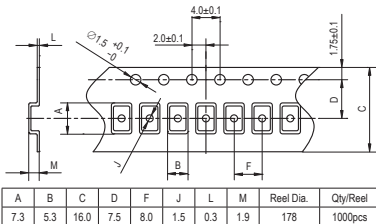
SOLDERING PATTERN



AT-CUT



TAPE SPECIFICATIONS



CUSTOM SPECIFICATIONS

Item	Specifications
Package type	94SMX(B)
Frequency range	8.000 MHz to 100.000 MHz
Frequency tolerance (at +25°C ±3°C)	O : ±10 ppm Q : ±15 ppm R : ±20 ppm T : ±30 ppm
Temperature stability (referred to +25°C)	

Temp. Stability(ppm) Opn. Temperature Range	±3.0	±5.0	±7.5	±10.0	±15.0	±20.0	±30.0	±50.0	±100.0	±150.0
	FF	JJ	LL	OO	QQ	RR	TT	XX	CC1	GG1
0°C to +45°C (edd)	○	○	○	○	○	○	○	○	○	○
0°C to +50°C (eee)	○	○	○	○	○	○	○	○	○	○
0°C to +60°C (egg)	○	○	○	○	○	○	○	○	○	○
0°C to +70°C (eii)	○	○	○	○	○	○	○	○	○	○
-10°C to +50°C (gee)	○	○	○	○	○	○	○	○	○	○
-10°C to +60°C (ggg)	○	○	○	○	○	○	○	○	○	○
-10°C to +70°C (gii)	○	○	○	○	○	○	○	○	○	○
-10°C to +75°C (gjj)	○	○	○	○	○	○	○	○	○	○
-20°C to +70°C (iii)	○	○	○	○	○	○	○	○	○	○
-20°C to +75°C (ijj)	○	○	○	○	○	○	○	○	○	○
-30°C to +75°C (kij)	○	○	○	○	○	○	○	○	○	○
-30°C to +80°C (kkk)	○	○	○	○	○	○	○	○	○	○
-30°C to +85°C (klj)	○	○	○	○	○	○	○	○	○	○
-35°C to +80°C (lkk)	○	○	○	○	○	○	○	○	○	○
-40°C to +85°C (mll)	○	○	○	○	○	○	○	○	○	○
-40°C to +90°C (mmm)	○	○	○	○	○	○	○	○	○	○
-40°C to +105°C (mpp)	○	○	○	○	○	○	○	○	○	○
-40°C to +125°C (mtt)	○	○	○	○	○	○	○	○	○	○

○ : Available (The extremes depend on actual frequencies.)

Equivalent series resistance (ESR)	60 Ω max. / 8.000 MHz to 10.000 MHz (Fundamental) 40 Ω max. / 10.000 MHz to 15.000 MHz (Fundamental) 30 Ω max. / 15.000 MHz to 40.000 MHz (Fundamental) 80 Ω max. / 30.000 MHz to 100.000 MHz (3rd overtone)
Shunt capacitance (C0)	5 pF max.
Drive level (P)	100 μW max. (10 μW for testing)
Aging	±2 ppm max. at +25°C ±3°C for first year
Cut / Oscillation mode	AT - Cut / Fundamental / 8.000 MHz to 40.000 MHz AT - Cut / 3rd overtone / 30.000 MHz to 100.000 MHz
Reflow condition	10 seconds max. at +250°C ±10°C

PART NUMBERING GUIDE

90.000MHz 94SMX(B) Q / CC1 / mpp / 12



Example

SMI Part No.	Frequency	Package	Frequency Tolerance	Temperature Stability	Operating Temperature Range	Load Capacitance
90.000MHz 94SMX(B) Q/CC1/mpp/12	90.000 MHz	94SMX(B)	Q = ±15 ppm	CC1 = ±100 ppm	mpp = -40°C to +105°C	CL = 12 pF
16.9344MHz 94SMX(B) R/TT/iii/16	16.934 MHz	94SMX(B)	R = ±20 ppm	TT = ±30 ppm	iii = -20°C to +70°C	CL = 16 pF

PACKAGE DATA

Item	Package	94SMX(B)
Lid		Metal
Base		Ceramic
Sealing		Seam
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)

XTAL

CLK OSC

VCXO

TCXO

OCXO

MCF