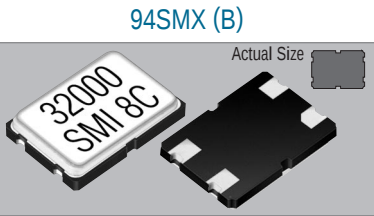


Quartz Crystal Units

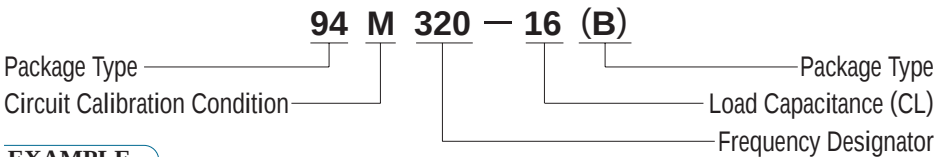
7 × 5mm FAMILY (94SMX)



STANDARD SPECIFICATIONS

- 1. Package type 94SMX(B), 94SMX(C), 94SMX(D) & 94SMX(E)
- 2. Frequency range 94SMX(B) : 8.000 MHz to 150.000 MHz
94SMX(C) : 9.800 MHz to 100.000 MHz
94SMX(D) : 9.800 MHz to 100.000 MHz
94SMX(E) : 9.800 MHz to 100.000 MHz
- 3. Calibration tolerance ± 50 ppm at $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$
- 4. Temperature stability (referred to $+25^{\circ}\text{C}$) ± 50 ppm over -20°C to $+70^{\circ}\text{C}$ (AT-Cut)
 ± 100 ppm over -10°C to $+60^{\circ}\text{C}$ (BT-Cut)
- 5. Load capacitance 18 pF
- 6. Shunt capacitance (Co) 5 pF max.
- 7. Drive level (P) 100 μW max.
- 8. Aging ± 5 ppm max. at $+25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ per year
- 9. Cut AT-Cut or BT-Cut
- 10. Reflow soldering condition 10 seconds max. at $+235^{\circ}\text{C} \pm 5^{\circ}\text{C}$

PART NUMBERING GUIDE



EXAMPLE

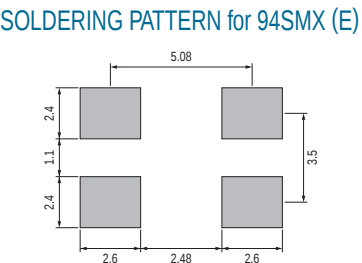
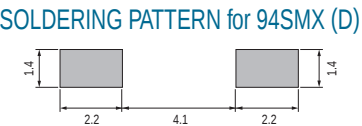
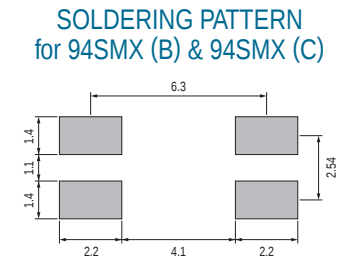
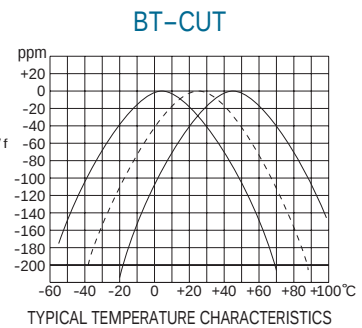
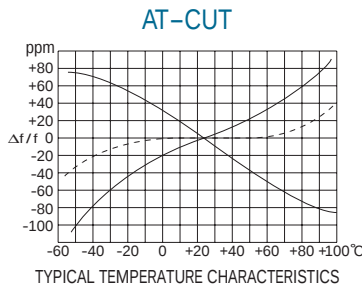
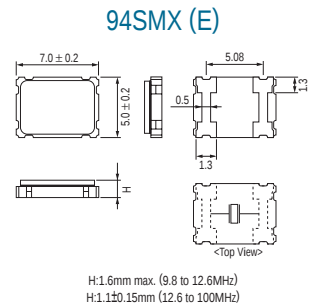
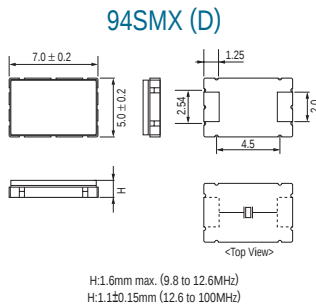
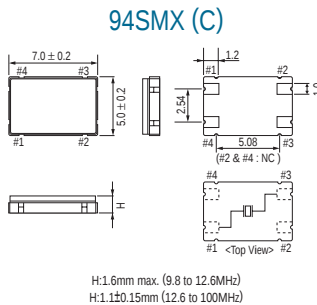
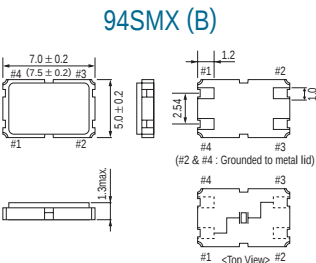
CIRCUIT CALIBRATION CONDITION	FREQUENCY	PACKAGE	SMI PART NO.
Parallel Resonance = M CL = 16 pF (Optional)	320 = 32.000 MHz	(B)=94SMX(B)	94M320-16(B)
Series Resonance = S (Optional)	320 = 32.000 MHz	(D)=94SMX(D)	94S320(D)
Parallel Resonance = M CL = 16 pF (Optional)	320 = 32.000 MHz	94SMX(E)	94M320-16(E)

HOW TO ORDER STANDARD SMI CRYSTALS

Order by SMI Part No.

PACKAGE DATA

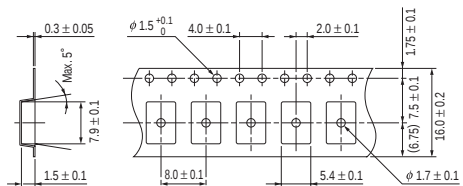
Item	Package	94SMX(B)	94SMX(C)	94SMX(D)	94SMX(E)
LID		Metal	Ceramic	Ceramic	Ceramic
BASE		Ceramic	Ceramic	Ceramic	Ceramic
SEALING		Seam-weld	Glass-frit / Resin	Glass-frit / Resin	Glass-frit
TERMINAL PLATING		Gold	Gold	Gold	Gold



94SMX STANDARD FREQUENCIES

FREQUENCY MHz	FREQUENCY DESIGNATOR	MAXIMUM EQUIVALENT SERIES RESISTANCE OHMS	FREQUENCY MHz	FREQUENCY DESIGNATOR	MAXIMUM EQUIVALENT SERIES RESISTANCE OHMS
8.000000	080	100	18.869000	1886	50
9.090500	0909	80	18.870000	1887	50
9.216000	092	80	19.200000	192	50
9.600000	096	80	19.660800	196	50
9.756000	097	80	20.000000	200	50
9.830400	098	80	20.480000	204	50
10.000000	100	60	20.736000	207	50
10.240000	1024	60	22.118400	221	50
10.752000	1075	60	24.000000	240	50
11.000000	110	60	24.000140	240001	50
11.059200	1105	60	24.576000	245	50
11.673600	116	60	25.000000	250	50
11.700000	117	60	25.175000	251	50
12.000000	120	60	25.312000	253	50
12.096000	1209	60	27.000000	270	50
12.288000	122	60	28.000000	280	50
12.296000	1229	60	28.224000	282	50
13.500000	135	50	28.636363	286	50
14.318180	143	50	28.800000	288	50
14.400000	144	50	29.491200	294	50
14.484000	1448	50	30.000000	300	50
14.644000	146	50	32.000000	320	50
14.745600	147	50	32.215909	322	50
15.000000	150	50	33.333000	333	50
15.360000	153	50	33.868800	338	50
15.500000	155	50	35.251200	352	50
15.728640	157	50	35.468950	354	50
16.000000	160	50	36.000000	360	50
16.000312	160003	50	40.000000	400	50
16.044000	1604	50	40.320000	403	50
16.128000	1612	50	44.236800	442	50
16.147200	1614	50	48.000000	480	80 3RD OT
16.257000	162	50	49.920000	499	80 3RD OT
16.384000	163	50	50.000000	500	80 3RD OT
16.667000	166	50	50.680000	506	80 3RD OT
16.934400	169	50	52.416000	524	80 3RD OT
17.000000	170	50	56.448000	564	80 3RD OT
17.100000	171	50	59.800000	598	80 3RD OT
17.700000	177	50	64.000000	640	80 3RD OT
17.734475	1773	50	80.000000	800	80 3RD OT
18.000000	180	50			
18.432000	184	50			
18.867000	188	50			

TAPE SPECIFICATIONS for 94SMX (B), 94SMX (C), 94SMX (D) & 94SMX (E)



1000pcs. per reel (178mm dia.)