

**49SX-T and 49SX-K
low profile smd crystals
(3.20 ~ 90.0)MHz**

- low profile resistance weld smd package
- AT and BT cut
- automotive reliability
- standard and custom frequencies
- RoHS compliant

Electrical specification

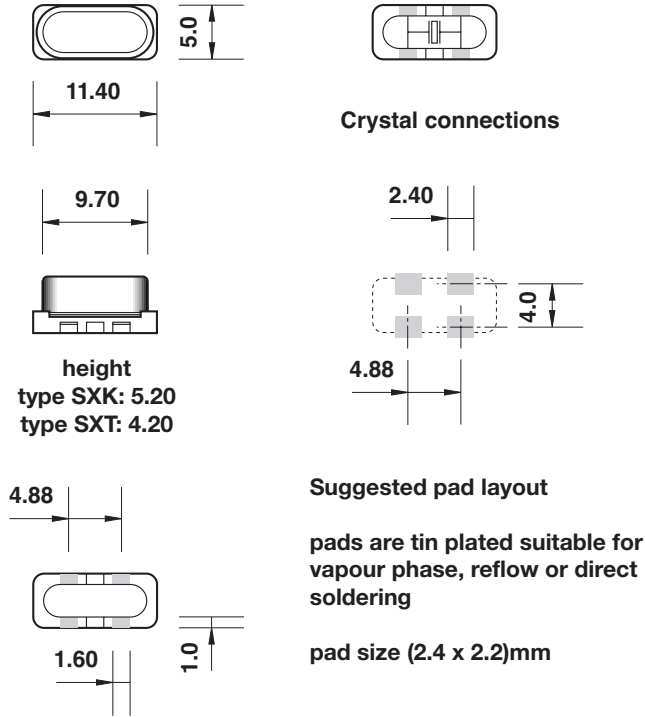
Case style	49SXT: height 4.20mm, 49SXX: height 5.20mm
Frequency range	(3.20 ~ 90.0)MHz, fundamental to 32.0MHz
Adjustment tolerance	from ±5ppm at +25°C, frequency dependent
Temperature tolerance	from ±5ppm, frequency and temperature range dependent
Operating temperature	(-10 +60)°C ~ (-40 +85)°C
Storage temperature	(-40 +85)°C
Load	customer specified
Shunt capacitance C₀	7.0pF max.
Drive level	10µW ~ 5milli.W
Q factor	80,000 typical
Ageing	±5ppm first year max.
Insulation resistance	500Meg. ohm min. at+100Vd.c.

Ordering information

EXAMPLE	49SXT crystal, 10.00MHz, load 20pF, ±20ppm at +25°C, ±50ppm(-10 +60)°C
TFC PART NUMBER	49SXT 10.00M H C G I
49SXT	crystal series: 49SXT height 4.20mm, 49SXX height 5.20mm
10.00M	frequency: 10.00M = 10.00MHz, frequency range from (3.20 ~ 90)MHz
H	load capacitance: H = 20pF
C	adjustment tolerance at +25°C: C = ±20ppm
G	temperature tolerance: G = ±50ppm
I	temperature range: I = (-10 +60)°C
Load capacitance	C: 10pF, D: 12pF, E: 15pF, G: 18pF, H: 20pF, I: 30pF, J: 32pF, S: series
Adjustment tolerance	A: ±5ppm, B: ±10ppm, C: ±20ppm, E: ±30ppm, G: ±50ppm, H: ±100ppm
Temperature tolerance	A: ±5ppm, B: ±10ppm, P: ±15ppm, C: ±20ppm, E: ±30ppm, G: ±50ppm, H: ±100ppm
Temperature range	B: (0 +55)°C, I: (-10 +60)°C, C: (-20 +70)°C, L: (-40 +85)°C

49SX-T and 49SX-K

49SX K and 49SX T dimensions(mm)



ESR - equivalent series resistance

frequency range(MHz)	cut/mode	esr(Ω)
3.50 ~ 4.0	AT1	<140
4.0 ~ 5.0	AT1	<120
5.0 ~ 6.0	AT1	<80
6.0 ~ 7.0	AT1	<70
7.0 ~ 9.0	AT1	<45
9.0 ~ 13.0	AT1	<40
13.0 ~ 16.0	AT1	<35
16.0 ~ 20.0	AT1	<30
20.0 ~ 24.0	AT1	<25
24.0 ~ 32.0	AT3	<120
32.0 ~ 80.0	AT3	<80
24.0 ~ 40.0	BT1	<30