

49USMX CRYSTALS

49USMX SMD Standard and Low Profile

3.2MHz to **70.0MHz**

FEATURES

- Low cost crystal for mass market applications
- Surface mount version of HC49-4H crystal
- Comprehensive stockholding of standard frequencies
- Customized parts readily available
- Industry-standard package
- Low-profile versions available



49USMX crystals are low profile surface mount crystals with the same footprint as standard HC49 and HC49-4H crystals. 49USMX crystals are ideal for use in low cost, mass-market applications but are also able to be produced to close tolerances when required.

SPECIFICATION

Frequency Range:	3.2MHz to 70MHz	
Calibration Tolerance:	±30ppm at 25°C standard ±10ppm available	
Frequency Stability over Temp:	from ± 10 ppm over $-10^{\circ} \sim +60^{\circ}$ from ± 15 ppm over $-40^{\circ} \sim +85^{\circ}$ C	
Storage Temperature Range:	-50° ∼ +105°C	
Shunt Capacitance (C0):	4pf typical, 7pF maximum	
Load Capacitance (CL):	Series or from 8pF to 32pF (Customer specified)	
Ageing:	±3ppm maximum (Ta = 25°C, drive 100μW)	
Drive Level:	100μW typical, 500μW maximum	
Reflow Soldering:	260°C, 10s maximum	
Holder:	Hermetic seal, resistance weld	
Packaging:	EIA 24mm tape and reel 1000 pieces per reel	
RoHS Status:	RoHS Compliant	

EQUIVALENT SERIES RESISTANCE

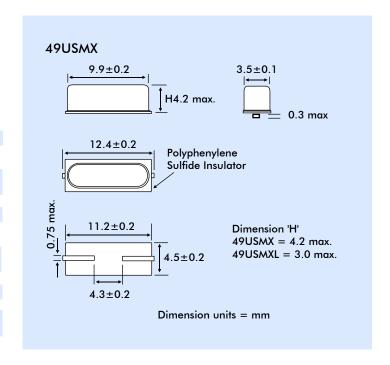
Frequency Range MHz	Crystal Cut/ Mode	ESR Ω Max.
3.2 ~ 3.4	AT-Fund.	300
$3.5 \sim 6.0$	AT-Fund.	120
6.1 ~ 10.0	AT-Fund.	60
10.1~30.0	AT-Fund.	40
27.0 ~ 30.0	AT-3rd OT	150
30.1 ~ 50.0	AT-3rd OT	100
50.1 ~ 70.0	AT-3rd OT	80







OUTLINE & DIMENSIONS



PART NUMBER GENERATION

