

# PRODUKT-INFO

## SM 49-4 SMD CRYSTAL

ELECTRICAL SPECIFICATIONS	
Model	SM-49-4
Frequency Range	3.2 MHz ~ 70.0 MHz
Frequency Tolerance (at +25°C)	±10 ppm / ±30 ppm / ±50 ppm
Frequency Stability	±10 ppm / ±30 ppm / ±50 ppm
Load Capacitance (C <sub>L</sub> )	10 pF ~ Series (Customer Spec.)
Drive Level	100 µW (500 µW max.)
Equivalent Series Resistance	see Table 1
Shunt Capacitance	7 pF max.
Operating Temperature Range	-10°C to +60°C, -20°C to +70°C, -40°C to +85°C option
Storage Temperature Range	-40°C to +85°C
Insulation Resistance	500 MΩ min. at 100 V <sub>DC</sub>
Aging (at +25°C) first year	±5 ppm / year max.



Actual Size

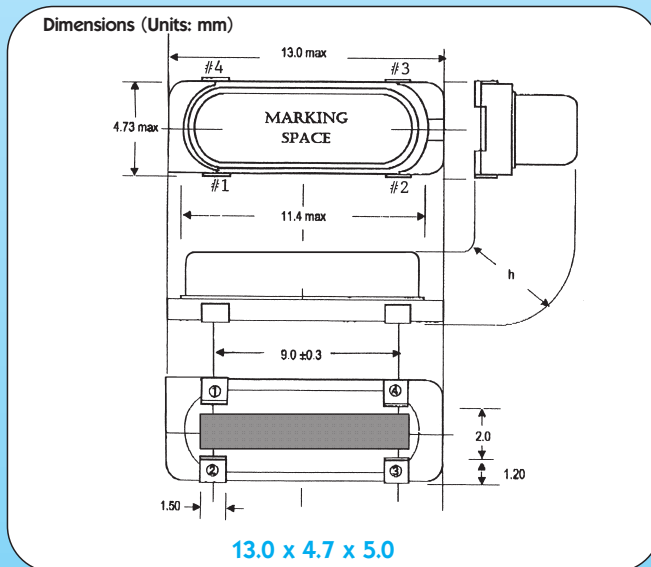


Table 1

EQUIVALENT SERIES RESISTANCE (ESR) AND OSCILLATION MODE		
Frequency Range	ESR Ω max.	Mode / Cut
3.200 MHz ~ 4.499 MHz	150	Fundamental / AT
4.500 MHz ~ 5.999 MHz	120	Fundamental / AT
6.000 MHz ~ 6.999 MHz	100	Fundamental / AT
7.000 MHz ~ 7.999 MHz	90	Fundamental / AT
8.000 MHz ~ 8.999 MHz	80	Fundamental / AT
9.000 MHz ~ 9.999 MHz	60	Fundamental / AT
10.000 MHz ~ 12.999 MHz	50	Fundamental / AT
13.000 MHz ~ 29.999 MHz	40	Fundamental / AT
30.000 MHz ~ 70.000 MHz	80	3rd Overtone / AT
27.000 MHz ~ 40.000 MHz	40	Fundamental / BT

Lowest Frequency vs max. Height	
Frequency, MHz	Height, mm
>20.00	4.0
>3.579	4.5
3.579	5.0

■ Footprint-compatible with: MA-406 Epson, CM-309S CITIZEN, MM-39SL DSL



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All specifications subject to change without notice.