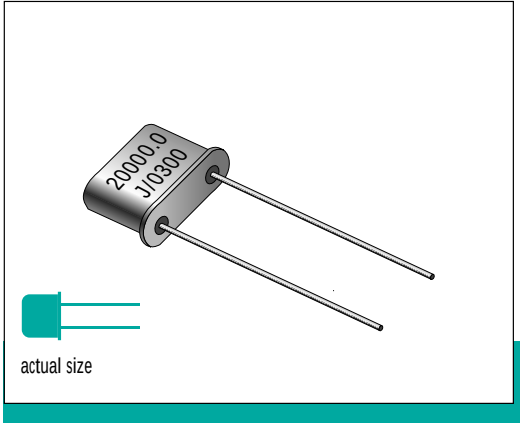


actual size

MQ series • UM-5

high precision quartz crystals

features

- high stability
- surface mount option

type	MQ5 (UM-5)			
frequency (MHz)	10.0 ~ 38.0	30.0 ~ 105.0	50.0 ~ 175.0	70.0 ~ 250.0
	fundamental	3rd overtone	5th overtone	7th overtone
frequency tolerance at 25 °C	± 3 ppm ~ ± 15 ppm (other on request)			
frequency stability options	± 3 ppm 0 °C ~ +60 °C			
	± 5 ppm -20 °C ~ +70 °C			
	± 15 ppm -40 °C ~ +90 °C			
	± 25 ppm -50 °C ~ +105 °C			
	(other on request)			
storage temperature	-55 °C ~ + 125 °C			
load capacitance C_L	8 pF ~ 30 pF / series			
shunt capacitance C_0	< 7 pF			
drive level max.	100 µ W			
aging	< ± 3 ppm			

order information example:

Q - 20.0 - MQ5 - 20 - 5 / 5 - SMC

1. 2. 3. 4. 5. 6. 7.

1.	quartz:	Q
2.	frequency:	20.0 MHz
3.	type:	MQ5 (UM5)
4.	load capacitance:	20 pF (S for series)
5.	frequency stability at 25 °C:	± 5 ppm
6.	frequency vs temperature:	± 5 ppm
7.	special requirement:	SMC - surface mount with clip

test conditions:

a) acceleration:
1000 g / 0.5 ms, 1/2 sine wave
b) shock (random drop):
height 75 cm, 3 times to hardwood surface ($\Delta R/R \leq 20\%$; $\Delta f/f \leq \pm 5$ ppm)
c) vibration:
f = 10 Hz ~ 55 Hz; amplitude = 1.5 mm; period = about 1 minute;
time = 2 h each direction
d) solderability:
according to DIN 68-2-6

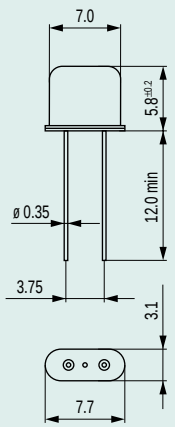
marking:

1. line = frequency (fund. tone in kHz, overtones in MHz)
2. line = company code / date code / internal code

Jauch
The pulse of progress

MQ series • UM-5

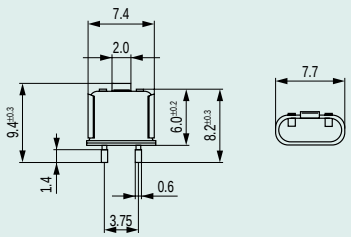
dimensions



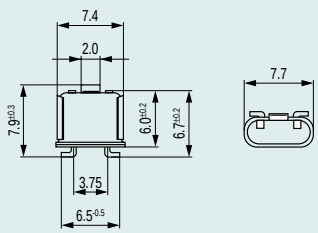
in mm

UM-5/SMD-Clip dimensions

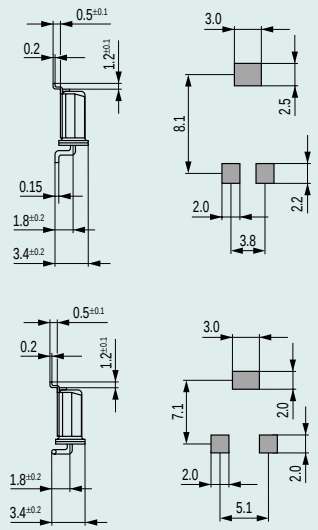
A-version



B-version

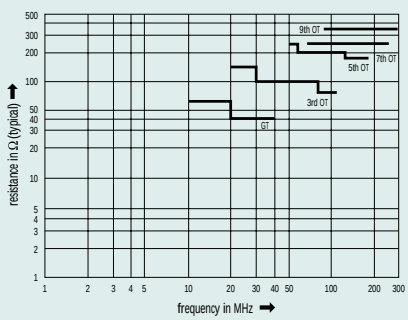


pad layout

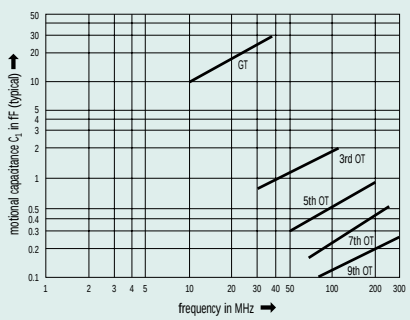


in mm

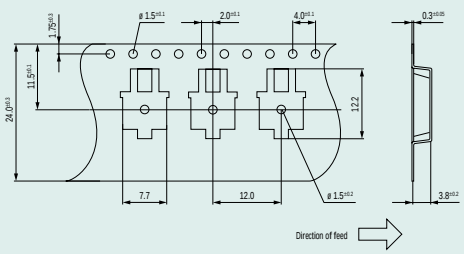
series resistance table (Rs)



motional capacitance table (R_1)



taping specification UM-5/SMD



1000 pcs per reel

in mm

High Precision

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