

SHOULDER

SMD0503(4P & 2P) Crystal

ELECTRICAL SPECIFICATION

Frequency Range	8.0000 to 110.000 MHz
Load Capacitance	10pF to series
Frequency Tolerance (at 25°C)	±30ppM Maximum
Oscillation Mode	Fundamental, Third Overtone
Frequency Stability in Temperature	±30ppM Maximum
Operating Temperature Range	-20°C to +70°C Standard (or Optional)
Storage Temperature Range	-40°C to +85°C
Equivalent Series Resistance (ESR)	See ESR Table
Drive Level	10~100uW
Shunt Capacitance	7pF Maximum
Aging (at 25°C)	±3ppM per year
Insulation Resistance	500 MOhm Minimum

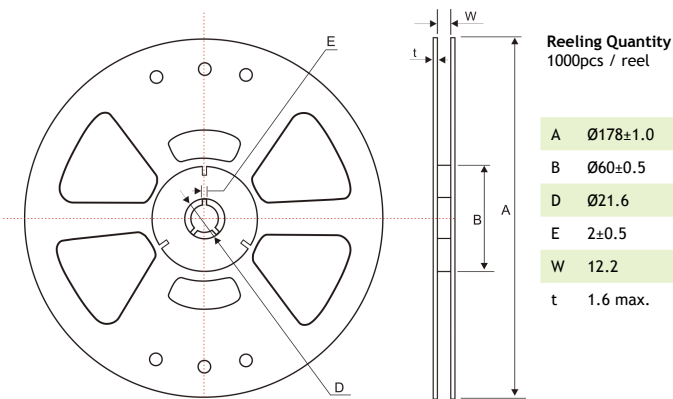
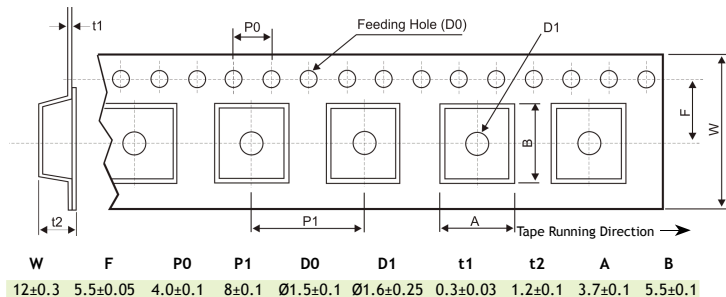
FREQUENCY RANGE AND OSCILLATION MODE

Fundamental (F)	8.0000 to 40.000MHz
Third Overtone (3OT)	40.000 to 110.000MHz

ESR TABLE (Ohms)

8.0000 to 12.000MHz	100Max
12.000 to 16.000MHz	80Max
16.000 to 20.000MHz	70Max
20.000 to 24.000MHz	60Max
24.000 to 40.000MHz	50Max
40.000 to 110.000MHz	80Max

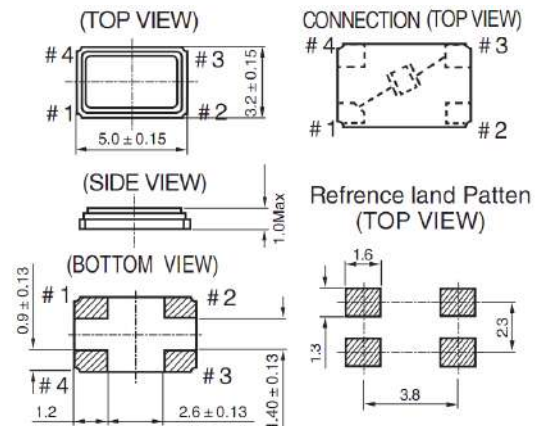
TAPE SPECIFICATIONS (all in mm) - Carrier Tape Dimensions



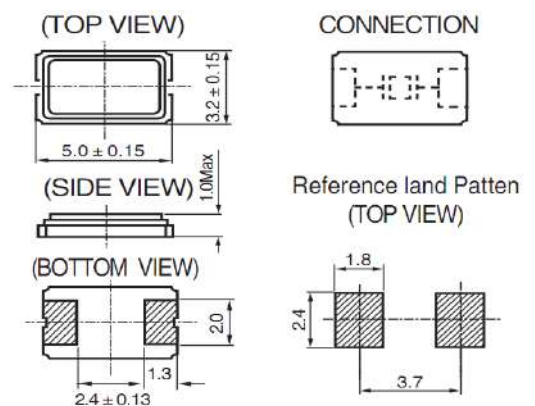
MECHANICAL DIMENSIONS (all in mm)

Lead free

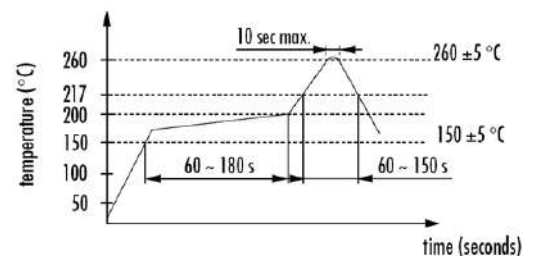
4Pads:



2Pads:



SOLDERING



PART NUMBERING SYSTEM (Example)

SMD0503-11.0592-F-20-30-30-A-T-4P

Hold Type

SMD0705 / SMD0302 / SMD0402 / SMD0503 / SMD0603 / SMD0804 / 495-SMD / 4952-SMD

Nominal Frequency (MHz)

Enter the nominal frequency (3 digits after dot) or up to last significant digit different than zero

Mode of Operation (Vibration Mode)

F= Fundamental
T= 3rd Overtone

Load Capacitance
S=Series Resonant
or enter load capacitance
10 to 33 for parallel

4P=4 Pads 2P=2 Pads

Options (can be blank)
S= Standard
X= Additional Specifications
T= Tape and Reel

Operating Temperature Range (°C)

A= -20°C to 70°C
B= -10°C to 60°C
C= 0°C to 50°C
D= -30°C to 80°C
E= -40°C to 85°C

Frequency Stability (± ppm)
Frequency Tolerance (± ppm)

SHOULDER CHINA

www.shoulder.cn

Add Headquarter: No. 115, Gaoyun road, Binhu Economic & Technology Development Area, Wuxi, China

Tel: 0510-85629111 Fax: 0510-85627222 E-mail: info@shoulder.cn