

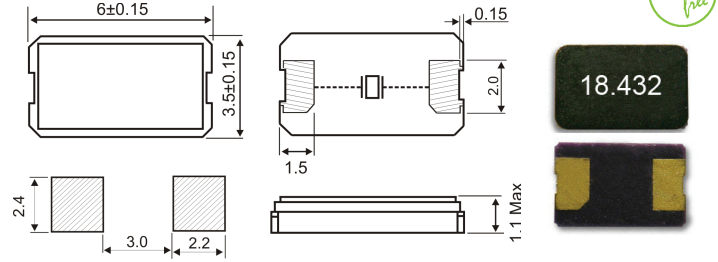
DESCRIPTION

The SMD0603(2P) crystal has a ultra small package and wide frequency range.

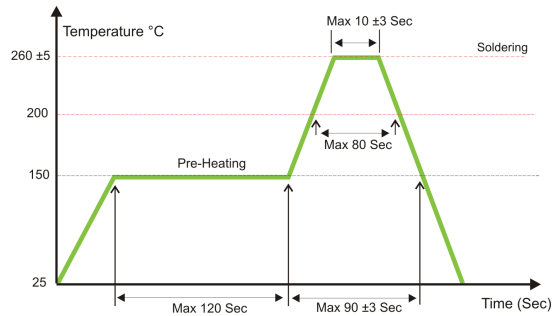
ELECTRICAL SPECIFICATION

Frequency Range	10.00 to 110.00 MHz		
Load Capacitance	10pF to 33 (for parallel)		
Frequency Tolerance (at 25°C)	±20ppM Maximum		
Frequency Stability at -10 to +60°C	±20ppM Maximum		
Operating Temperature Range	-20°C to +70°C		
Storage Temperature Range	-40°C to +85°C		
Equivalent Series Resistance (ESR)	See ESR Table	ESR Table (Ohms)	
Drive Level	0.1mW Maximum	8.0 to 12.0MHz	80 max
Shunt Capacitance	7pF Maximum	12.0 to 40.0MHz	60 max
Aging (at 25°C)	±5ppM per year	40.0 to 100.0MHz (3 rd overtone)	100 max
Insulation Resistance	500 MOhm Minimum		

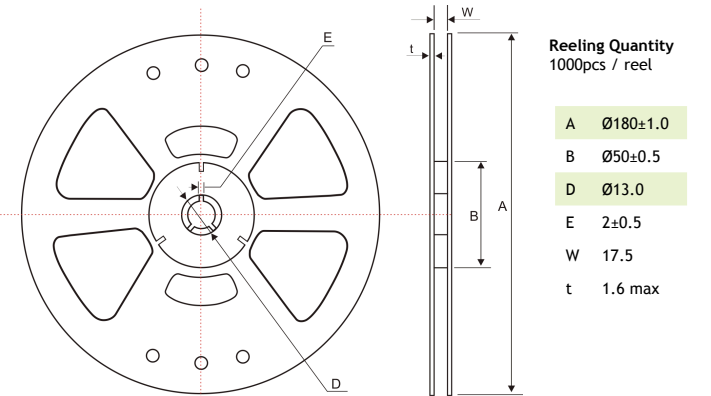
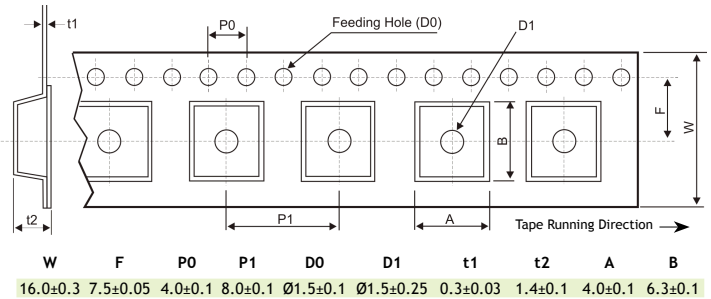
MECHANICAL DIMENSIONS (all in mm)



SOLDERING

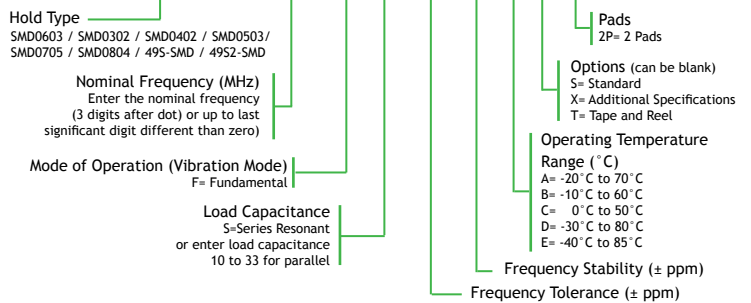


TAPE SPECIFICATIONS (all in mm) - Carrier Tape Dimensions



PART NUMBERING SYSTEM (Example)

SMD0603-18.432-F-20-30-30-A-T-2P



ENVIRONMENTAL SPECIFICATION

Conditions		Results
1. Temperature test		
Temperature cycling test	Steps of cycle	1) at -55°C, 30 minutes 2) at +25°C, 10-15 min. 3) at +85°C, 30 minutes 4) at +25°C, 10-15 min.
	Number of cycles	3 times
Low Temperature test	Temperature	-20°C ±2°C
	Length of test	96 hours
2. Aging test		
	Temperature	+85°C ±20°C
	Length of test	96 hours
3. Salt spray test		
	Temperature	+35°C ±2°C
	Length of test	48 hours
	NaCl %	5%
4. Humidity test		
	Temperature	+40°C ±2°C
	Relative humidity	90 - 95%
	Length of test	96 hours

MECHANICAL SPECIFICATION

Conditions		Results
1. Vibration test		
	Frequency	10 - 55Hz
	Amplitude	0.762mm
	Sweep	1.0 minute
	Duration	2 hours
2. Terminal Strength		
Lead pulling test	Load	907.2 gram
	Direction	to the downward
	Duration of applied force	5 seconds
Lead bending test	Load	453.6 gram
	Bending angle	90° to normal position
	Rate of bending	3 seconds in each cycle
	Number of bending	3
3. Lead solderability test	Dipping in solder (+245° ±5°C) for 5 seconds	More than 95% of surface being tested should be coated uniformly with solder
4. Drop test		
	Method of drop	Natural drop
	Dropping floor	Hard wood board
	Height	30 cm
	Number of drops	3 times