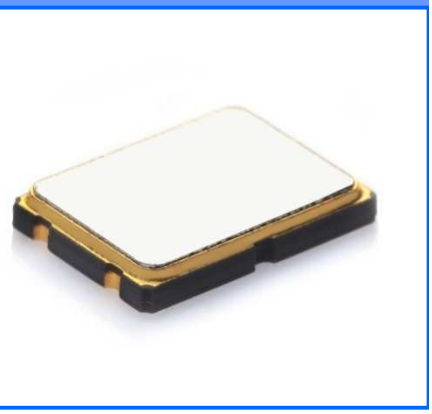
CRYSTAL UNIT

CERAMIC SMD TYPE

SX-7

- Four Pad Ceramic SMD Package
- Fundamental Crystal Design
- Tight Tolerance/Stability
- Using Highly Reliable Seam Weld Method
- Taping and Reel Available, Automatic Mountable
- Pb-free and RoHS Compliance



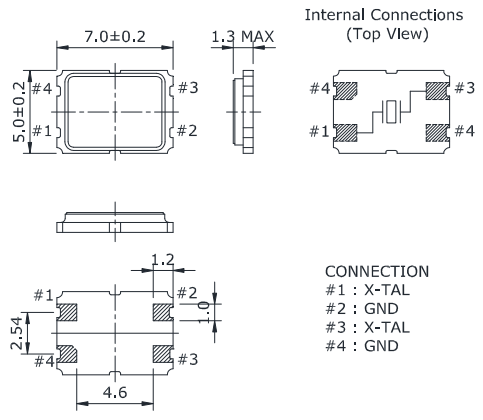
■ ELECTRICAL SPECIFICATIONS

Frequency Range	6.000 to 125.000 MHz
Operating Temperature Range	-20 to +70 ℃, -40 to +85 ℃, or specify
Storage Temperature Range	-40 to +85 ℃
Frequency Tolerance (at 25 ℃)	±15, ±30, ±50 ppm(STD), or specify
Frequency Stability Over Operating Temperature Range	±10 to ±50 ppm(-20 to +70 ℃) ±20 to ±100 ppm(-40 to +85 ℃)
Load Capacitance (CL)	18 pF(STD), Custom CL≥10 pF or Series Resonant
Drive Level	10 ㎼(200 ㎼ Max.)
Shunt Capacitance (C0)	7.0 pF Max.
Aging (at 25 ℃)	±3 ppm/year Max.
Insulation Resistance	500 MΩ Min. at 100 V_{DC}

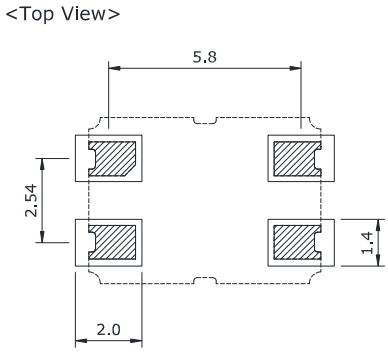
■ EQUIPMENT SERIES RESISTANCE(ESR)

Frequency Range(MHz)	ESR(Ω Max.)	Mode of Oscillation
6.000 ~ 6.999	120	Fundamental
7.000 ~ 9.999	70	Fundamental
10.000 ~ 11.999	60	Fundamental
12.000 ~ 14.999	60	Fundamental
15.000 ~ 19.999	50	Fundamental
20.000 ~ 34.999	40	Fundamental
35.000 ~ 43.999	80	3rd overtone
44.000 ~ 49.999	60	3rd overtone
50.000 ~ 79.999	60	3rd overtone
80.000 ~ 125.000	60	3rd overtone

■ MECHANICAL DIMENSIONS (mm)



■ LAND PATTERN (mm)



■ PART NUMBERING GUIDE

S M 18 1 30 M7 – 27.00000 – T&R

PACKAGE TYPE
SX-7(7.0×5.0mm)
LOAD CAPACITANCE
18 : 18 pF
SR : SERIES
MODE OF OSCILLATION
1 : FUNDAMENTAL
FREQUENCY TOLERANCE AT 25℃
30 : ±30 ppm
XX: Two digit for Tolerance

PACKAGE OPTION
BLANK : BULK
T&R : TAPE & REEL
FREQUENCY
TABLE 1.
XX: Two digit for Stability

■ TABLE 1.

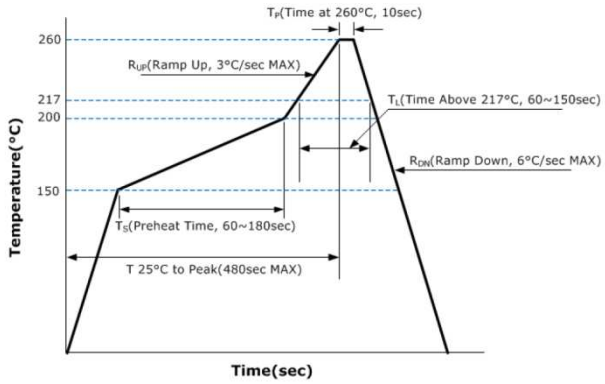
FREQUENCY STABILITY VS. TEMPERATURE RANGE

Temp \ Stability		±10	±15	±20	±30	±50	±100
		3	4	5	6	7	8
-10~70℃	D	*	*	*	*	*	*
-20~70℃	E	*	*	*	*	*	*
-30~60℃	F	*	*	*	*	*	*
-20~85℃	G		*	*	*	*	*
-30~70℃	H			*	*	*	*
-30~85℃	I			*	*	*	*
-40~85℃	J			*	*	*	*
-40~90℃	K				*	*	*
-40~105℃	L				*	*	*
-40~125℃	M					*	*

■ ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Temperature Cycling	MIL-STD-883, Method 1010, Condition B
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-883, Method 2002, Condition B
Vibration	MIL-STD-883, Method 2007, Condition A
Moisture Resistance	MIL-STD-883, Method 1004
Moisture Sensitivity	J-STD-020, MSL 1
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition K
Solderability	MIL-STD-883, Method 2003

■ REFLOW PROFILE



■ MARKING GUIDE

LINE 1 : XX.XXX
LINE 2 : SUNNY Y WW

Sunny
Year
Week
Frequency in MHz

■ TAPE AND REEL DIMENSIONS

1,000pcs/reel

