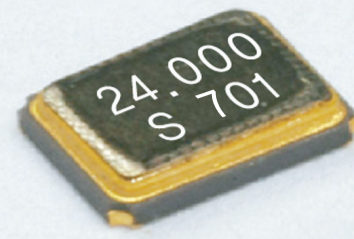


CERAMIC SMD TYPE SX-32

- Four pad ceramic surface mount package
- AT cut
- Tight tolerance/stability
- Using highly reliable seam weld method
- Taping and reel available, automatic mountable
- Pb-free and RoHS compliance



ELECTRICAL SPECIFICATIONS

Frequency Range	12.000 to 50.000MHz
Operating Temperature Range	-10 to +60°C (STD), -20 to +70°C, -40 to 85°C, or specify
Storage Temperature Range	-40 to +85°C
Frequency Tolerance (at 25°C)	±15, ±30, ±50ppm(STD), or specify
Frequency stability Over Operating Temperature Range	See Table1 in page 4
Load Capacitance(CL)	12pF(STD), Custom CL≥8pF or Series Resonant
Drive Level	10μW(100μW max.)
Shunt Capacitance(Co)	5.0pF max.
Aging (at 25°C)	±3.0ppm/year max.
Insulation Resistance	500MΩ min. at 100Vdc

EQUIVALENT SERIES RESISTANCE(ESR)

Frequency Range(MHz)	ESR(Ω MAX.)	Mode of Oscillation
12.000 ~ 13.999	150	Fundamental
14.000 ~ 15.999	100	Fundamental
16.000 ~ 19.999	80	Fundamental
20.000 ~ 29.999	60	Fundamental
30.000 ~ 50.000	50	Fundamental

PART NUMBERING GUIDE

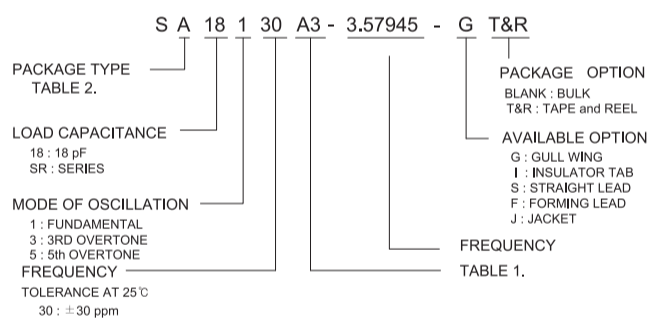


TABLE 1.

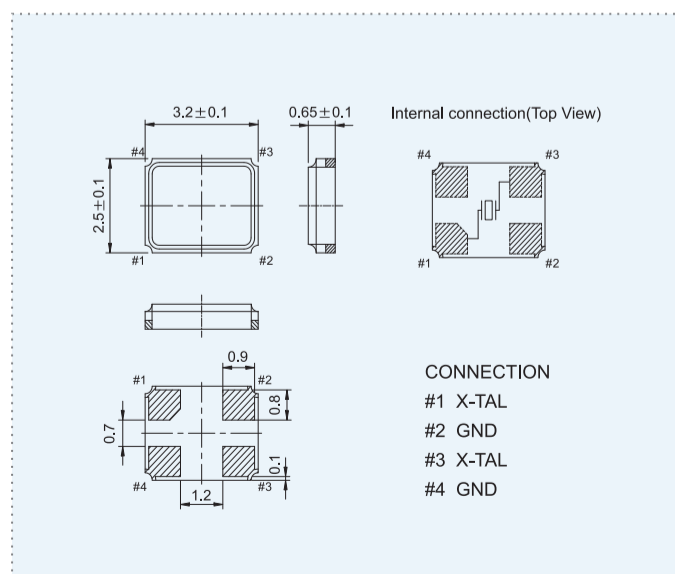
FREQUENCY STABILITY VS. TEMPERATURE RANGE		±5	±7.5	±10	±15	±20	±30	±50	±100
Temp	Stability	1	2	3	4	5	6	7	8
	-10 ~ 60°C	A	*	*	*	*	*	*	*
-20 ~ 60°C	B		*	*	*	*	*	*	*
0 ~ 70°C	C		*	*	*	*	*	*	*
-10 ~ 70°C	D		*	*	*	*	*	*	*
-20 ~ 70°C	E		*	*	*	*	*	*	*
-30 ~ 60°C	F			*	*	*	*	*	*
-20 ~ 85°C	G				*	*	*	*	*
-30 ~ 70°C	H				*	*	*	*	*
-30 ~ 85°C	I					*	*	*	*
-40 ~ 85°C	J						*	*	*
-40 ~ 90°C	K							*	*
-40 ~ 105°C	L							*	*

TABLE 2.

A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
HC-49/U	HC-49/T	ATS-25/U	ATS-49/U	ATS-51/U	UM-1	UM-4	UM-5	SX-1	SX-3	SX-5	SX-7	SX-6	SX-8	SX-32	SX-

22

MECHANICAL DIMENSIONS (mm)



LAND PATTERN (mm)

