

ATS SERIES

ATS-49/U, ATS-25/U, ATS-51/U

- ATS Holder Type Package
- AT-Cut or BT-Cut Available
- Resistance Weld Seal
- Tape and Reel, Insulator Tab, Three Leads and Custom Lead Length Options Available
- Tight Tolerance / Stability
- Pb-free and RoHS Compliance



ELECTRICAL SPECIFICATIONS

Frequency Range	3.2768 to 60.000 MHz
Operating Temperature Range	-20 to +70 °C, -40 to +85 °C, or specify
Storage Temperature Range	-40 to +85 °C
Frequency Tolerance (at 25 °C)	±15, ±30, ±50 ppm(STD), or specify
Frequency Stability	±10 to ±50 ppm(-20 to +70 °C)
Over Operating Temperature Range	±20 to ±100 ppm(-40 to +85 °C)
Load Capacitance (CL)	18 pF(STD), Custom CL≥10 pF or Series Resonant
Drive Level	100 μW(1000 μW Max.)
Shunt Capacitance (C0)	7.0 pF Max.
Aging (at 25 °C)	±3 ppm/year Max.
Insulation Resistance	500 MΩ Min. at 100 V _{DC}

EQUIVALENT SERIES RESISTANCE(ESR)

Frequency Range(MHz)	ESR(Ω Max.)	Mode of Oscillation
3.2768 ~ 3.999	150	Fundamental / AT-Cut
4.000 ~ 4.999	120	Fundamental / AT-Cut
5.000 ~ 5.999	100	Fundamental / AT-Cut
6.000 ~ 7.999	90	Fundamental / AT-Cut
8.000 ~ 9.999	70	Fundamental / AT-Cut
10.000 ~ 11.999	60	Fundamental / AT-Cut
12.000 ~ 14.999	50	Fundamental / AT-Cut
15.000 ~ 19.999	40	Fundamental / AT-Cut
20.000 ~ 27.000	30	Fundamental / AT-Cut
27.000 ~ 32.999	50	Fundamental / BT-Cut
33.000 ~ 45.158	40	Fundamental / BT-Cut
24.576 ~ 47.999	80	3rd Overtone
48.000 ~ 60.000	60	3rd Overtone

MECHANICAL DIMENSIONS (mm)

ATS-25/U	ATS-49/U	ATS-51/U

PART NUMBERING GUIDE

TABLE 1.

S C 18 1 50 J7 - 27.00000 - T&R	
PACKAGE TYPE	PACKAGE OPTION
C : ATS-25/U	BLANK : BULK
D : ATS-49/U, E : ATS-51/U	T&R : TAPE & REEL
LOAD CAPACITANCE	
18 : 18pF	
SR : SERIES	
MODE OF OSCILLATION	
1 : FUNDAMENTAL	
3 : 3 RD OVERTONE	
FREQUENCY	
27.00000	
TOLERANCE AT 25 °C	
50 : ±50 ppm	
XX : Two digit for Tolerance	

TABLE 1.
XX : Two digit for Stability

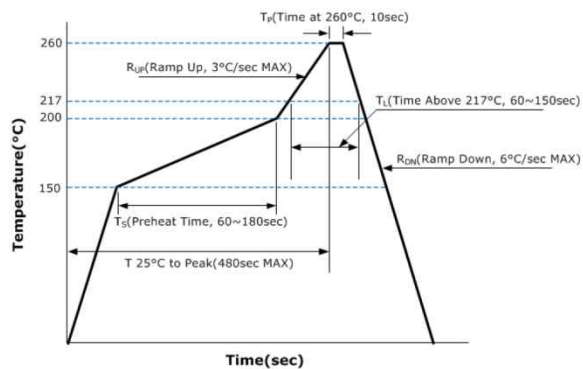
FREQUENCY STABILITY VS. TEMPERATURE RANGE

Stability		±10	±15	±20	±30	±50	±100
Temp		3	4	5	6	7	8
-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				*	*	*
-40~125°C	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-202, Method 213, Condition C
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

A: AT-CUT FUND.
B: BT-CUT FUND.
C: AT-CUT 3RD OVERTONE

LINE 1 : SC XX.XXX

LINE 2 : A YY WW

Year

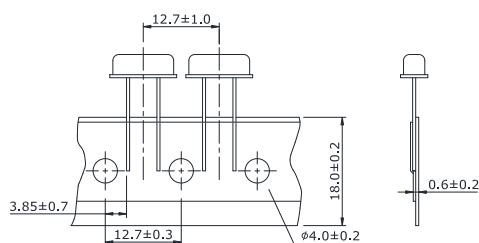
Week

Frequency in MHz

TAPE AND REEL DIMENSIONS

1,000pcs/reel

STRAIGHT LEAD



FORMING LEAD

