

ACT534A-SMX-2

The **ACT534ASMX-2** family is a low cost, 2 pad, high quality, low aging 5x3.2mm SMD Crystal in a ceramic base / ceramic lid package, glass sealed for good reliability. The wide frequency range and specification options ensure suitability for many applications.

APPLICATIONS: Instrumentation, Notebook, Security, Games, Audio-visual, Office automation, Micro Clock, Process Control & Consumer.

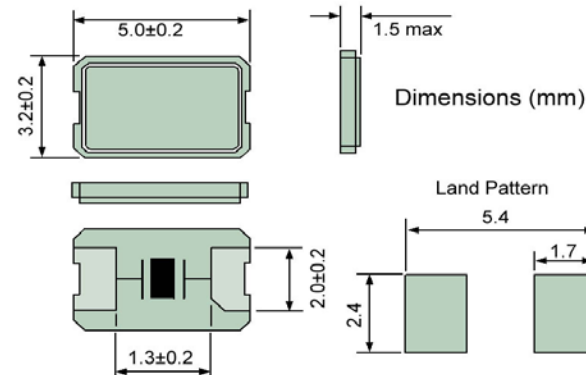


Specification

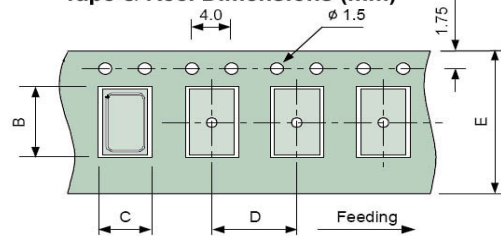
Parameter	Symbol	Specification	Condition
Frequency Range	f_0	6.00 ~ 80.0MHz	Please specify
Frequency Tolerance (@25°C)	$\Delta f/f_0$	$\pm 30, \pm 50$ ppm (Standard or Specify)	Please specify
Stability over temp range	Tc	$\pm 30, \pm 50$ ppm (Standard or Specify)	Please specify
Temp Operating Range	Topr	0~+50°C ~ -40~-+85°C	Please specify
Temp Storage Range	Tstg	-55 ~ +125°C	
Equivalent Series Resistance	ESR	See table 1	
Load Capacitance	CL	9pF, 10pF, 16pF, 20pF & Series or specify	Please Specify
Shunt Capacitance	C0	5pF max	
Drive Level	DL	10 ~ 100µW	
Drive Level Dependency	DLD	FDLD <10ppm <1.3 ESR max / ESR min <1.3	10 ~ 100µW 6 steps
Insulation Resistance	IR	500MΩ min	@100V DC
Aging	Fa	± 5 ppm p/year (± 3 ppm option)	(First year max @ 25°C)

Table 1

Frequency Range (MHz)	ESR (Ω) max	Mode / Cut
8.000 ~ 9.999	70	Fundamental / AT
10.000 ~ 29.999	40	Fundamental / AT
29.999 ~ 44.999	60	3rd Overtone AT
45.000 ~ 80.000	50	3rd Overtone AT

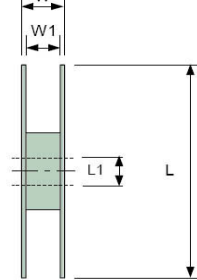
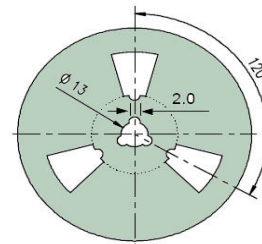


Tape & Reel Dimensions (mm)

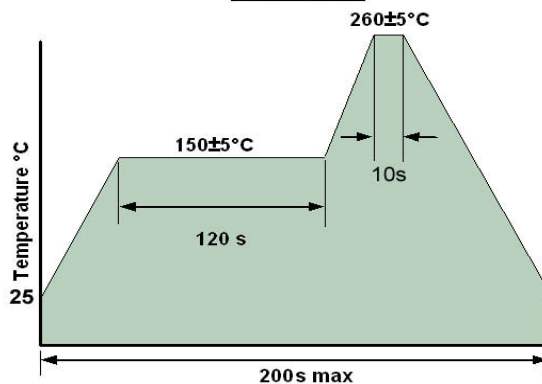


A	B	C	D	E	L	L1	W	W1
1.46	5.5	3.6	8.0	12	180	13	15.4	13

Standard reel quantity 1K pieces



Reflow Profile



AVAILABLE TEMPERATURE Vs STABILITY						
Stability (ppm)	±10	±15	±20	±30	±50	±100
Temperature (°C)						
-10 ~ +60	✓	✓	✓	✓	STD	STD
-20 ~ +60	✓	✓	✓	✓	STD	STD
0 ~ +60	✓	✓	✓	✓	STD	STD
-10 ~ +70	✓	✓	✓	✓	STD	STD
-20 ~ +70	✓	✓	✓	✓	STD	STD
-30 ~ +65					STD	STD
-30 ~ +70					STD	STD
-20 ~ +85					STD	STD
-30 ~ +85					STD	STD
-40 ~ +85					STD	STD
-40 ~ +90						STD

Please note that all parameters can not necessarily be specified in the same device

Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature & Load Capacitance

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK

<http://www.actcrystals.com>

SERIES : ACT534ASM-X-2 Part numbering code is BW

Example :

BW 534ASM-X-2 **1200** (12.000MHz) **I** (±30ppm) **K** (±30ppm) **G** (-20+70) **RO** (16pF) **F** (Fund') **C** (1K Reel) **- PF** (RoHS)

Frequency
6-9.999MHz 0 and 1st 3 digits of frequency
10-99.9999MHz 1st four digits of Frequency. See note 4
Examples
0983 = 9.8304MHz
1200 = 12.000MHz
7999 = 79.9999MHz
NB:
It is important to suffix the above part number with the full frequency required to give a completed part number as illustrated below

Tolerance (±ppm) @ 25°C	
E	10
F	15
G	20
H	25
I	30
L	50

Stability Over Operating Temperature (°C)	
F	10
G	15
I	20
K	30
O	50
V	100

Operating Temperature Range (°C)	
E	-10+60
B	-0+60
F	-10+70
G	-20+70
W	-30+65
T	-30+70
H	-20+85
L	-30+85
M	-40+85
N	-40+90

Load Capacitance (pF or Series Resonance)	
GO	8
JO	9
KO	10
MO	11
OO	12
ZO	14
PO	15
RO	16
TO	18
VO	20
AA	24
BA	25
DA	30
SR	SR

Mode	
F	Fundamental
A	3rd Overtone

RoHS Comp'	
- PF	

Package	
L	Loose
C	1K Reels

AVAILABLE TEMPERATURE Vs STABILITY						
Stability (ppm)	±10	±15	±20	±30	±50	±100
Temperature (°C)						
-10 ~+60	✓	✓	✓	✓	STD	STD
-20 ~+60	✓	✓	✓	✓	STD	STD
0 ~+60	✓	✓	✓	✓	STD	STD
-10 ~+70	✓	✓	✓	✓	STD	STD
-20 ~+70	✓	✓	✓	✓	STD	STD
-30 ~+65					STD	STD
-30 ~+70					STD	STD
-20 ~+85					STD	STD
-30 ~+85					STD	STD
-40 ~+85					STD	STD
-40 ~+90					STD	STD

Full Example Part Number

BW1200IKGROFC - PF 12.0000MHz

NOTES :

- 1) Tighter Tolerances and Stabilities and other Operating Temperature Ranges may be available.
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. Such devices would normally be allocated a custom specification part number which is wholly customer specific.
(EG : A 12.000MHz custom ACT534ASM-X-2 device may have a part number such as BW1200C- C1122-PF)
- 3) A guide to availability of tighter stabilities appears on page one of this data sheet in Table 2
- 4) Frequencies below 10.000MHz are prefixed with a "0" (eg: 0900 = 9MHz. Whereas 10.000MHz is 1000)

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