

2 Pads Version - 11.5 x 4.6 x 4.0mm

• Features

Low cost & wide applications

Tight tolerance and Stability

RoHS compliant

• General Specification

Туре	HC-49S/SMD - 2 Pads / H4.0
Frequency Range	3.20MHz to 90.00MHz
Frequency Tolerance at 25°C	\pm 10ppm to \pm 100ppm *
Frequency Stability	\pm 10ppm to \pm 100ppm *
Operating Temperature	-10°C to +60°C *
Load Capacitance	6pF to 32pF / Series
Shunt Capacitance	7pF max *
Storage Temperature	-40°C to +85°C *
Drive Level	100µW *
Aging	\pm 5ppm max first year *

* Can be changed according to Customer's requirement.

• Drive Level Codes (µW)

A = 100	B = 200	D = 50	E = 300	G = 500	I = 10

• Load Capacitance Codes

12pF = A	12.5pF = B	14pF = C	16pF = D	17pF = E	18 pF = F
20pF = G	25pF = H	30pF= I	32 pF = J	33 pF = K	Series = L
$13 \mathrm{pF} = \mathrm{M}$	27 pF = N	$50 \mathrm{pF} = \mathrm{O}$	10 pF = P	15 pF = Q	22pF = R
15.8 pF = S	8.5pF = T	$8.2 \mathrm{pF} = \mathrm{U}$	$40 \mathrm{pF} = \mathrm{V}$	9pF = W	11pF = X
13.8pF = Y	19.6pF = Z	6pF = a	7pF = d	8pF = e	19pF = f

• Operating Temperature Codes (°C)

A = -10 to +60 B = -20 to +70 C = -10 to +	70 I = -40 to $+85$	X = -30 to $+80$	W = -10 to $+50$
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• Frequency Tolerance & Frequency Stability Codes (ppm)

$P = \pm 10$ $S = \pm 20$ $T = \pm 30$ $U = \pm 50$ $V = \pm 100$

Pls contact us for the parameters you could not find in these tables.

• Frequency Stability vs. Operating Temperature

1 2					
	<u>+</u> 10ppm	<u>+</u> 20ppm	<u>+</u> 30ppm	<u>+</u> 50ppm	<u>+</u> 100ppm
-10°C-+50°C	\odot	\odot	•	\odot	\odot
-10°C-+60°C	\odot	\odot	•	\odot	\odot
-10°C-+70°C	\odot	\odot	•	\odot	\odot
-20°C-+70°C	\odot	\odot	•	•	\odot
-30°C-+80°C		\odot	•	•	\odot
-40°C-+85°C			\odot	•	\odot

• Standard

• ESR (Series Resistance Rs) vs Standard Frequency, Vibration Mode & Codes

Frequency Range	ESR Max	Code	Vibration Mode	Code
(MHz)	(Ω)			
3.200 - 3.579	250	а	AT Fund	А
3.800 - 4.000	150	1	AT Fund	А
4.001 - 5.000	120	2	AT Fund	А
5.001 - 6.000	100	0	AT Fund	А
6.001 - 7.000	80	2	AT Fund	А
7.001 - 8.000	60	4	AT Fund	А
8.001 - 9.999	60	1	AT Fund	А
10.000 - 13.999	50	2	AT Fund	А
14.000 - 35.328	40	4	AT Fund	А
24.000 - 34.999	120	е	3rd OT	a3
35.000 - 90.000	80	0	3rd OT	a3

Remark: ESR can be adjusted to other frequencies than typical mentioned. In such case, please approach Company for verification.

• Marking

Frequency + N (Company brand: Newstal) + Date code (Year Code + Month Code)

Year Code:

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
12	13	14	15	16	17	18	19	20	21	22	23

Month Code:

Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
А	В	С	D	Е	F	G	Н	Ι	J	K	L

For Example:

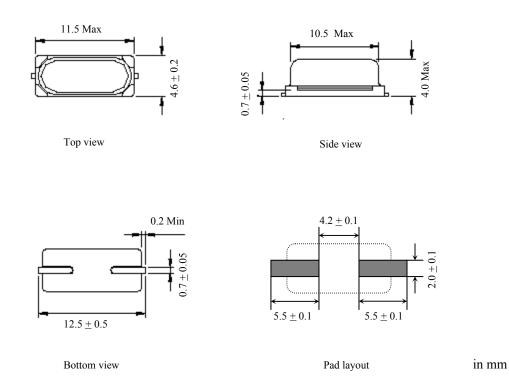
8.000N16

• Ordering Information

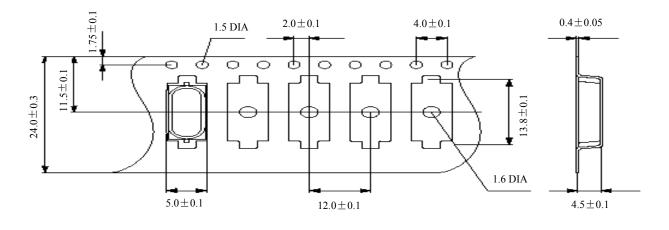
Drive Level	Load Capacitance	Operating Temperature	Frequency Tolerance	Frequency Stability	ESR	Туре	Vibration Mode	Frequency	Lead-free	Packing
(µW)	(pF)	(°C)	(ppm)	(ppm)	(Ω)			(MHz)		
	See Tables						See Table	xx.xxxM	LF	TR
100	20	-20 to +70	<u>+</u> 20	<u>+</u> 30	50		AT Fund		Lead-free	Tape & reel
A	G	В	S	Т	2	I	A		LF	TR

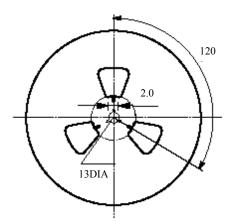
For Example: AGBST2HA-18.400MLF/TR

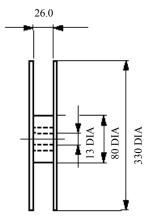
• Dimensions



Taping Specification







* Reel Quantity: 1,000pcs

in mm



