

Quartz Crystal : SX5032 , SX5032A

ROHS Compliant

General description

SMD Crystals suitable for any kind of application and realized in AT Cut to get best performance (available temp. stability $\leq \pm 3\text{ppm}$ in the range $+0^\circ\text{C} / +50^\circ\text{C}$). Widely used in telecomm. Field and PC peripherals, PCMCIA cards, where small size and thickness is a must. Can be realized with AT fundamental cut up to 45MHz.

Features

- Small size & SMD
- Customizable characteristics
- Tolerances up to $\pm 5\text{ppm}$
- Temp. stability up to $\pm 3\text{ppm}$



Electrical characteristics

Frequency range (MHz)	12 / 45 (Fund. AT Cut) , 37 / 125 (3th Ov. AT Cut)	
Tolerance @ $+25^\circ\text{C}$	Standard $\pm 30\text{ppm}$, upon request up to $\pm 5\text{ppm}$	
Resonance Mode	Serie , Parallel : 20pF, 30pF (1)	
Nom. Driving Level	0.1mW	
Temperature stability	standard : $\leq \pm 50\text{ppm}$, upon request up to $\pm 3\text{ppm}$	
Temperature range	$-20^\circ\text{C} / +70^\circ\text{C}$ (standard) , $-40^\circ\text{C} / +85^\circ\text{C}$ (extended)	
R1 max (Ω)	8.000-9.999	70
	10.000-11.999	70
	12.000-14.999	70
	15.000-19.999	60
	20.000-34.999	50
	35.000-43.999(3Ov)	40
	44.000-49.999(3Ov)	40
	50.000-79.999(3Ov)	80
	80.000-125.000(3Ov)	50
Aging	$\leq \pm 5\text{ppm/year}$, option $\leq \pm 2\text{ppm/year}$	

(1) other values available

Available frequency temperature stabilities

	$\pm 3\text{ppm}$	$\pm 5\text{ppm}$	$\pm 7.5\text{ppm}$	$\pm 10\text{ppm}$	$\pm 15\text{ppm}$	$\pm 20\text{ppm}$	$\pm 30\text{ppm}$	$\pm 50\text{ppm}$
$0^\circ\text{C} / +50^\circ\text{C}$	•	•	•	•	•	•	•	•
$-10^\circ\text{C} / +60^\circ\text{C}$		•	•	•	•	•	•	•
$-20^\circ\text{C} / +70^\circ\text{C}$		•	•	•	•	•	•	•
$-40^\circ\text{C} / +85^\circ\text{C}$					•	•	•	•

Marking

14.7456 — Frequency (MHz)
BA 01 1 — Year
— Week
— Load capacitance (pF)

Load capacitance Code

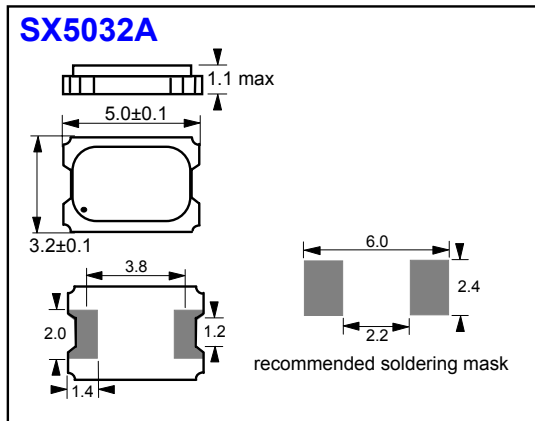
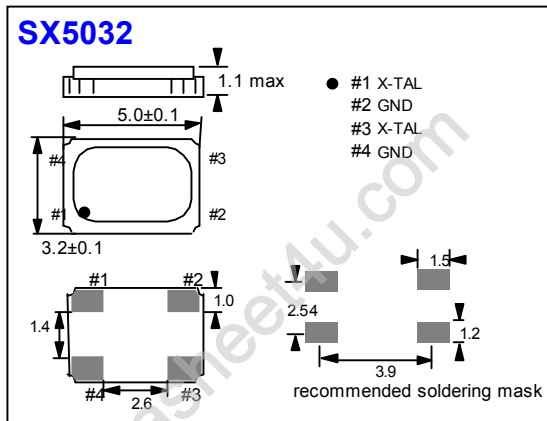
Value	Code
Serie	•
20pF	A
30pF	B
12pF	C
12.5pF	D
16pF	E
18pF	F
9pF	V
22pF	K

Value	Code
15pF	G
13pF	H
32pF	L
25pF	M
14pF	N
6pF	P
27	R
8pF	T
10pF	U

Year Code

Year	Code
2001	1
2002	2
...	
2009	9
2010	0

Mechanical dimensions



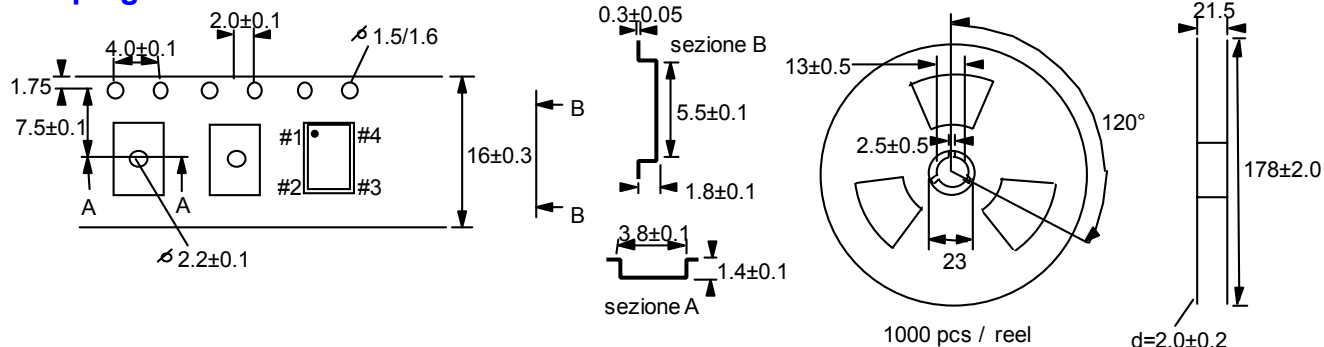
General Catalogue Ed. 2005 Rev. 01

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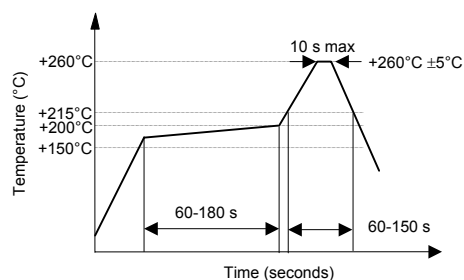
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1/(1)

Taping SX5032



Reflow soldering profile



Part numbering

SX5032 – 010.000000 F AT P20 A F A TR

1

2

3

4

5

6

7

8

9

1: Case	
SX5032	4 pads
SX5032A	2 pads

2: Frequency (MHz)	
000.000000	

10 digits included comma

3: Oscillation Mode	
F = Fundamental	
X = 3 rd Overtone	

4: Crystal blank Cut angle	
AT	

5: Resonance Mode	
S = serie	
P20 = Parallel 20pF	
P30 = Parallel 30pF	
P16 = Parallel 16pF	
and so on	

6: Freq. Tolerance (ppm)	
A	<±30ppm @+25°C
B	<±25ppm @+25°C
C	<±20ppm @+25°C
D	<±15ppm @+25°C
E	<±10ppm @+25°C
F	<±7.5ppm @+25°C
G	<±5.0ppm @+25°C

7: Temperature Range	
A	+0°C / +50°C
B	+0°C / +60°C
C	+0°C / +70°C
D	-10°C / +60°C
E	-10°C / +70°C
F	-20°C / +70°C
G	-30°C / +60°C
H	-30°C / +70°C
L	-30°C / +75°C
M	-20°C / +85°C
N	-40°C / +85°C
P	-40°C / +105°C
Q	-55°C / +105°C
R	-55°C / +125°C

8: Freq. Temp. Stability (ppm)	
A	<±50ppm
B	<±40ppm
C	<±35ppm
D	<±30ppm
E	<±25ppm
F	<±20ppm
G	<±15ppm
H	<±10ppm
L	<±7.5ppm
M	<±5.0ppm
N	<±3.0ppm

Codes 6, 7, 8 can be replaced by overall stability requirement and expressed as it follows :

X999, where

X = temp. Range code (see 7)

999 = 3 digits indicating stability in ppm

example :

F100 = 100ppm overall in -20°C/+70°C

N050 = 50ppm overall in -40°C/+85°C

9: Packaging	
TR	Taped in reel