

Quartz Crystal : TP5M32A

ROHS Compliant

General description

Crystals are realized with NT cut, in order to achieve low resonance frequency values (30KHz/80KHz). Widely used to generate internal time reference in PC, Mobile phones, microprocessors applications. 40KHz is standard frequency for ultra-sounds generators. 77.5KHz is, instead used to phase in lock with European broadcast time signal. Such crystals are also adopted with battery supplied systems, when extremely low power consumption is needed, for example during stand-by

Features

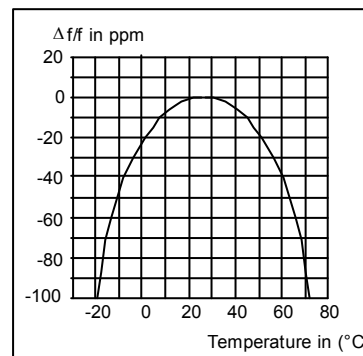
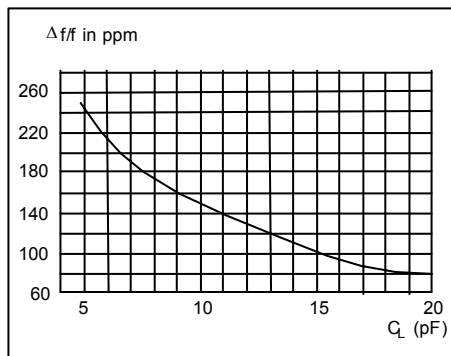
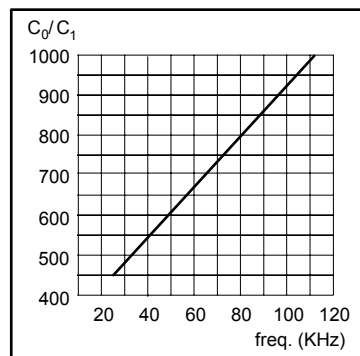
- Low cost
- Small size
- Low resonance frequency
- Low power consumption



Electrical characteristics

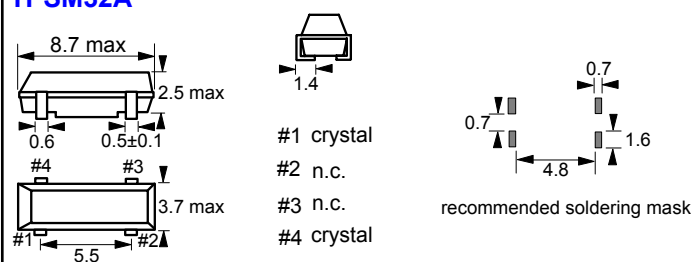
Nominal frequency	30KHz-80KHz
Tolerance @ +25°C	±10 ±20 ±30 ±50
Load capacitance	standard : 12.5 pF , upon request from 8 pF to 18 pF
Nom. Driving Level	1μW max.
R serie max	40 KΩ
Q (Quality factor)	60 K typical
Inversion point	25°C ±5°C
Temperature coefficient	-0.039ppm/°C ²
Dynamic capacitance	1.6fF typical
C ₀ /C ₁	See graph
Operating temperature range	-40°C / +85°C
Shock and vibration resistance	3 ppm max.
Insulation resistance	500 MΩ min. / DC 100 V
Aging	< ±5ppm

Dynamic values diagrams



Mechanical dimensions

TP5M32A



General Catalogue Ed. 2006 Rev. 01

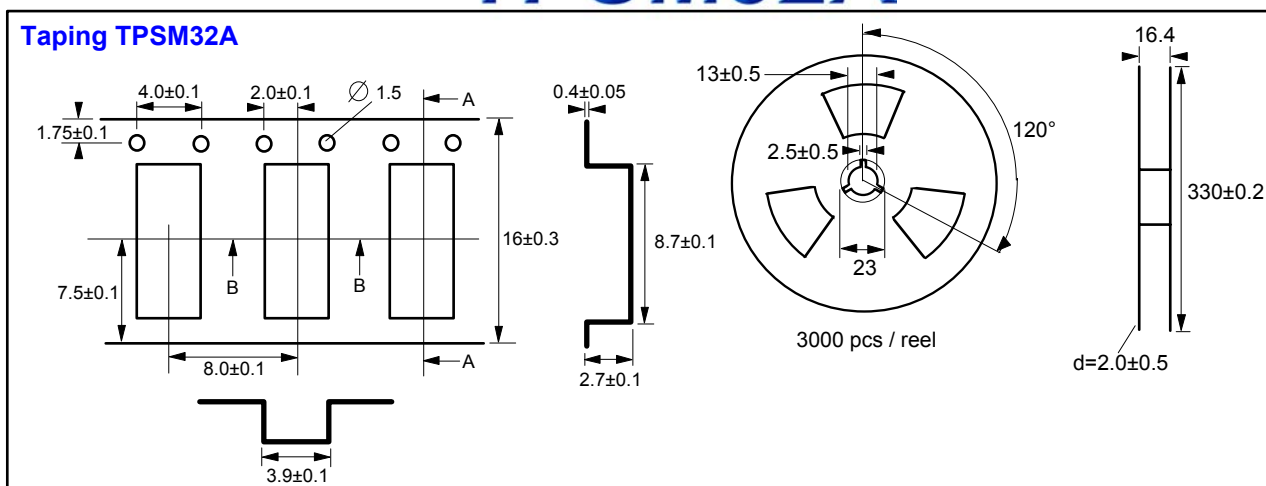
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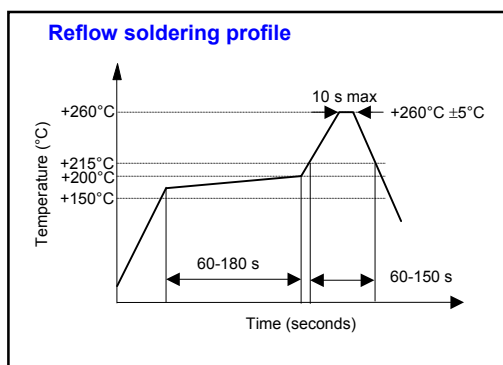
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Taping TP5M32A



Reflow soldering profile



Part numbering

TP5M32A - 032.768000 C P12.5

1

2

3

4

TP5M32A - 032.768000 C P 12.5

1

2

3

4

1: Case

TP5M32A

2: Frequency (KHz)

000.000000

10 digits included comma

3: Freq. Tolerance (ppm)

A <±30ppm @+25°C

C <±20ppm @+25°C

E <±10ppm @+25°C

4: Resonance Mode

P12.5 = Parallel 12.5pF

P6 = Parallel 6pF

P16 = Parallel 16pF

and so on



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