EUROQUARTZ

MT CRYSTALS

3.2 x 2.5 x 0.7mm SMD

FEATURES

- Frequency range 8MHz to 125MHz, fund. and 3o/t mode .
- Ultra-small package 3.2mm x 2.5mm x 0.7mm
- Entire package may be grounded via metal lid and two pads
- Packaged in standard EIA tape and reel
- Extremely low ageing with high shock and vibration resistance
- Ideal for PDAs, hand-held GPS, PCMCIA etc.

DESCRIPTION

MT crystals are ultra-miniature AT-cut crystals covering the frequency range 8MHz to 125MHz in fundamental mode. Their small size and low mass makes these crystals ideal for miniaturized hand-held equipment and similar high-density applications.

SPECIFICATION

JELINGATION		
Frequency Range:	8.0MHz to 125.00MHz	
Operating Mode:	AT-Cut Fund./AT-Cut 3rd OT.	
Calibration Tolerance at 25°C*:	from ±5ppm	
	(±10, ±20 or ±30ppm standard)	
Frequency stability*		
-10° to +60°C	from ±5ppm	
-20° to +70°C	from ±10ppm	
-40° to +85°C	from ±15ppm	
Operating Temperature Range:	From 0° ∼ +50°C to -40° ∼+85°C	
Storage Temperature:	-50°~+105°C	
Equivalent Series Resistance:	See table	
Shunt Capacitance (C0):	2pF to 4pF typical, 5pF maximum	
Load Capacitance (CL):	Series or from 8pF to 32pF	
	(Customer specified CL)	
Ageing:	<±3ppm per year at +25°C	
Drive level:	10 μ W typical, 100 μ W maximum	
Reflow Soldering:	10s maximum at 260°C twice	
	or 180s at 230°C, once.	
Packaging:	12mm EIA tape and reel	

*Note: Tighter stability, tolerance and lower ESR values are available.

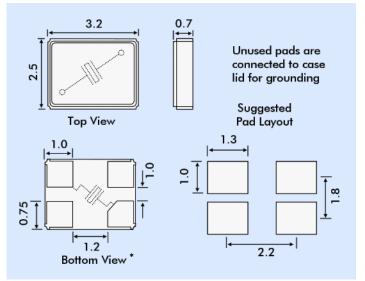
EQUIVALENT SERIES RESISTANCE

FrequencyESRange MHzΩ M
8.0~9.999 600
10.0~11.999 200
12.0~29.999 100
30.0~54.000 60
40.0~125.00 80

STANDARD PART NUMBERS AND SPECIFICATIONS

Frequency (MHz)	CL (pF)	Euroquartz Part Number	Tolerance (±ppm)/ Stability (±ppm)/ Temp. Range (°C)/ Max. ESR (Ohms)
16.0000	12	MT-16000-12	30/50/-20+70/100R
16.3840	12	MT-16384-12	30/50/-20+70/100R
20.0000	12	MT-20000-12	30/50/-20+70/100R
20.5720	12	MT-20572-12	30/50/-20+70/60R
20.9450	12	MT-20945-12	30/50/-20+70/60R
24.5500	12	MT-24550-12	30/50/-20+70/60R
24.5760	12	MT-24576-12	30/50/-20+70/60R
29.4912	12	MT-29491-12	30/50/-20+70/60R
32.0000	12	MT-32000-12	30/50/-20+70/60R
32.7680	12	MT-32768-12	30/50/-20+70/60R
40.0000	12	MT-40000-12	30/50/-20+70/60R
48.0000	12	MT-48000-12	30/50/-20+70/60R
50.0000	12	MT-50000-12	30/50/-20+70/60R

OUTLINE & DIMENSIONS



* Note: These parts may be supplied with the chamfered pad in different positions. However, the crystal connection is always as shown above.

PART NUMBER GENERATION

Part numbers for MT crystals are generated as follows:

Example:	16.000MHz MT/10/10/-10+60/12pF/80R
Nominal Frequen	cy)
Package 🔶 🗕	
Calibration tolera at 25°C (±ppm)	nce
Temperature Stab over temp. range	
Operating Temp. (Lower and upper	
Load Capacitance (Either SR for serie	
Equivalent Series (Optional - use w value is required)	hen special

8.0MHz to 125MHz

