# **MEMS CLOCK OSCILLATOR**

### **ASFLM**

#### **FEATURES**:

- Low Power Consumption
- Low Stand by Current
- Exceptional Stability Over Temp. at -40°C to +85°C

**STANDARD SPECIFICATIONS:** 

- Available over Extended Temp Range
- Low Cost-Compact QFN Plastic Packaging
- Compact Package design



- ► **APPLICATIONS**: CCD Clock for VTR Camera
  - Equipment Connected to PCs
  - Low Profile Equipment
  - · Lower Cost Crystal Oscillator Replacement
  - Computers and Peripherals
  - Portable Electronics (MP3 Players, Games)
  - Consumer Electronics such as TV's, DVR's, etc.
  - Vibrant, Shock-Prone & Humid Environments for Industrial Equipment

V

ps

ppm

Notes

F=100MHz

First year

(Pb) RoHS/RoHS II Compliant

• Demanding Military & Automotive Electronics

| Parameters                |                     | Minimum                       | Typical             | Maximum | Units        | Notes       |              |
|---------------------------|---------------------|-------------------------------|---------------------|---------|--------------|-------------|--------------|
| Frequency Range           | e:                  |                               | 1.0                 |         | 150          | MHz         |              |
| Operating Tempe           | erature:            |                               | 0                   |         | +70          | °C          | See options  |
| Storage Temperature:      |                     |                               | -55                 |         | +150         | °C          |              |
| Supply Voltage (Vdd):     |                     |                               | +1.8~+3.3           |         |              |             | See options  |
| Supply Current (no load): | 1.0 to 39.9999MHz   |                               |                     | 7       | 15           | mA          | Vdd=3.3V     |
|                           | 40.0 to 79.9999MHz  |                               |                     | 8       | 15           |             | No load      |
|                           | 80.0 to 124.9999MHz |                               |                     | 9       | 15           |             | RL=∞         |
|                           | 125.0 to 1501       | MHz                           |                     | 10      | 15           |             | T=25°C       |
| Output Valtage:           |                     | V <sub>OH</sub>               | 0.8*V <sub>dd</sub> |         |              |             |              |
| Output Voltage:           |                     | V <sub>OL</sub>               |                     |         | $0.2*V_{dd}$ | V           | 15pF         |
| Rise Time:                |                     | Tr                            |                     | 1.3     | 3.0          |             | 15pF; T=25°C |
| Fall Time:                |                     | Tf                            |                     | 1.3     | 3.0          | ns          | 20%/80%*VDD  |
| Output Load:              |                     | $15 pF max / 10 k\Omega min.$ |                     |         | pF           | See options |              |
| Symmetry:                 |                     |                               | 45                  |         | 55           | %           | @1/2Vdd      |
| Startup Time:             |                     |                               |                     | 1.5     | 3.0          | ms          |              |
| Disable Time:             |                     |                               |                     | 20      | 100          | ns          |              |
| Disable Stand-by Current: |                     |                               |                     | 15      | uA           |             |              |

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-5.0

#### **Absolute Maximum Ratings**

| Item            | Minimum | Maximum | Unit | Condition |
|-----------------|---------|---------|------|-----------|
| Supply Voltage  | -0.3    | +4.0    | V    |           |
| Input Voltage   | -0.3    | Vdd+0.3 | V    |           |
| Junction Temp.  |         | +150    | °C   |           |
| Soldering Temp. |         | +260    | °C   | 40sec max |
| ESD             |         |         | V    |           |
| HBM             |         | 2,000   |      |           |
| MM              |         | 200     |      |           |
| CDM             |         | 500     |      |           |

"1" (VIH ≥ 0.75\*Vdd) or Open: Oscillation

"0" (VIH<0.25\*Vdd) : Hi Z

60

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Tri-state Function (Stand-by) :

Cycle to cycle jitter:

Aging:

5101 Hidden Creek Ln Spicewood TX 78669 Phone: 512-371-6159 | Fax: 512-351-8858 For terms and conditions of sales, please visit: www.abracon.com

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+5.0

REVISED: 1.4.2021



Life Size

ASFLM

5.0 x 3.2 x 0.85 mm

## **MEMS CLOCK OSCILLATOR**



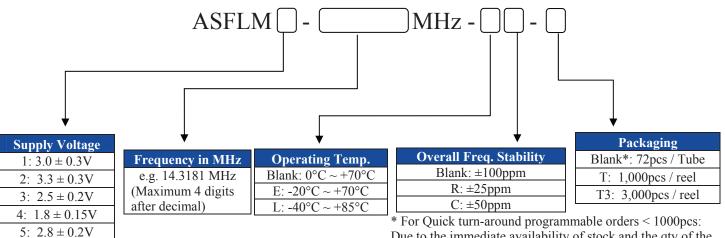
5.0 x 3.2 x 0.85 mm

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> PART NUMBER FOR PROGRAMMED ORDER S

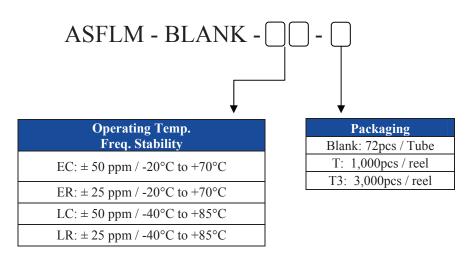
### **Programmed Orders (Quantity > 1,000pcs)**



\* For Quick turn-around programmable orders < 1000pcs: Due to the immediate availability of stock and the qty of the order, the parts may be delivered as BULK: Cut Tape, Loose parts in Antistatic Bag or in Tube(s). The MOQ per the series will still apply for Tube packaging.

#### **Un-Programmed Orders (Quantity < 1,000pcs)**

Blank un-programmed oscillators are available for quick turn engineering requirements. Please call ABRACON for more information.





**REVISED: 1.4.2021** 

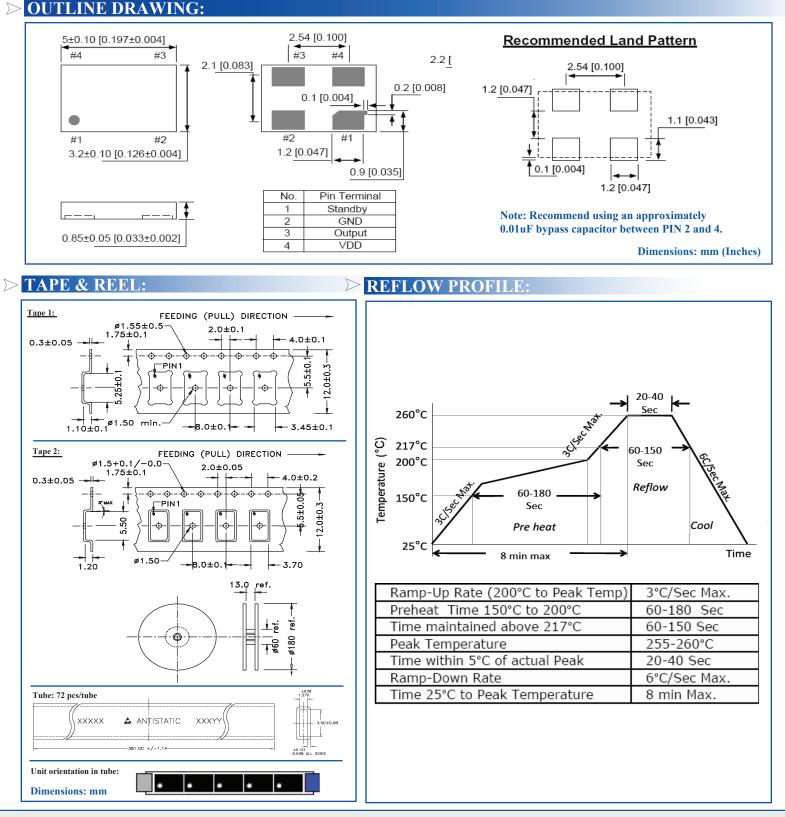
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Life Size

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