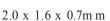
HCMOS SURFACE-MOUNT CRYSTAL CLOCK OSCILLATOR





Moisture Sensitivity Level (MSL) - This product is Hermetically Sealed and not Moisture Sensitive -MSL = N/A: Not Applicable





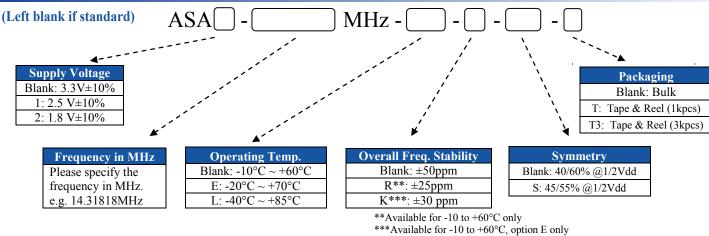
FEATURES:

- Ultra miniature package,
- 2.0 x 1.6 x 0.7mm
- Tri-state function
- · Suitable for RoHS compliant reflow process
- · Seam sealed package assures
- Suitable for high density SMT **STANDARD SPECIFICATIONS:**
- high reliability
- > APPLICATIONS: • CCD clock for VTR camera
 - Computers and peripherals
 - Portable electronics
 - Mobile communication, PDA

| Parameters | | Minimum | Typical | Maximum | Units | Notes |
|-----------------------------------|-----------------|---------------------------------|---------|---------|-------|--|
| Frequency Range | | 1.0 | | 80 | MHz | |
| Operating Temperature | | -10 | | +60 | °C | See options |
| Storage Temperature | | -40 | | +85 | °C | · |
| Overall Frequency Stability* | | -50 | | +50 | ppm | See options |
| Supply Voltage (Vdd) | | 2.97 | 3.3 | 3.66 | V | Standard |
| | | 2.25 | 2.5 | 2.75 | | Option 1 (CMOS) |
| | | 1.62 | 1.8 | 1.98 | | Option 2 (CMOS) |
| Supply Current (I _{dd}) | Vdd = 3.3 V | | 2.0 | 5.0 | mA | 1MHz ≤ F ≤ 20 MHz |
| | | | 4.0 | 10.0 | | 20 MHz < F ≤ 50 MHz |
| | | | 7.0 | 15.0 | | 50 MHz < F ≤ 80 MHz |
| | Vdd = 2.5 V | | 2.0 | 5.0 | | $1 \text{MHz} \le \text{F} \le 20 \text{ MHz}$ |
| | | | 3.0 | 10.0 | | 20 MHz < F ≤ 50 MHz |
| | | | 5.0 | 10.0 | | 50 MHz < F ≤ 80 MHz |
| | Vdd = 1.8 V | | 1.5 | 5.0 | | 1MHz ≤ F ≤ 20 MHz |
| | | | 2.5 | 5.0 | | 20 MHz < F ≤ 50 MHz |
| | | | 4.0 | 10.0 | | 50 MHz < F ≤ 80 MHz |
| Output Load | | | | 15 | pF | |
| | | | | 2 | TTL | |
| Output Voltage | V _{OH} | 0.9*Vdd | | | V | CMOS |
| | V _{OL} | | | 0.1*Vdd | | CMOS |
| | V _{OH} | 2.4 | | | | TTL |
| | V _{OL} | | | 0.4 | | TTL |
| Tri-state function | | "1" (VIH≥0.7*Vdd) : Oscillation | | | | Pin 1 must be pulled |
| | | "0" (VIH<0.3*Vdd) : Hi Z | | | | "high" for oscillation |
| Aging | | -3.0 | | +3.0 | ppm | @+25°C First year |
| Symmetry @1/2Vdd | | 40 | 50 | 60 | % | Standard |
| | | 45 | 50 | 55 | | Option S |
| Start-up Time | | | | 10.0 | ms | |
| Rise/Fall Time (Tr/Tf) | | | | 10.0 | ns | |

*Overall frequency stability includes initial frequency tolerance @+25°C and stability over the operating temperature.

OPTIONS AND PART IDENTIFICATION:







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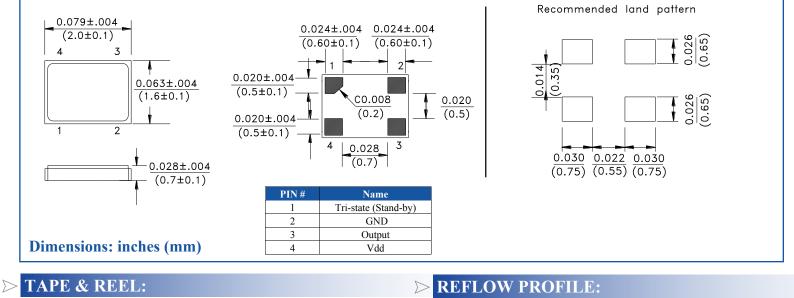


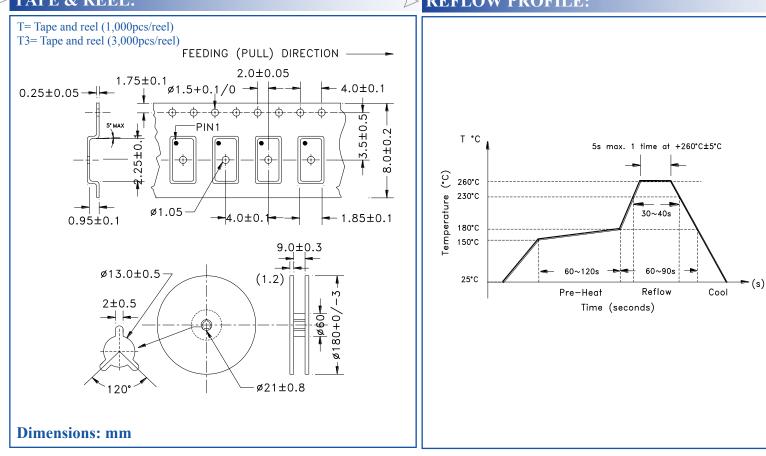
ASA SERIES



2.0 x 1.6 x 0.7mm

OUTLINE DRAWING:







Need a test socket for the ASA Series? To view compatible **PRECISION TEST & BURN-IN SOCKETS** for these parts, <u>click here.</u>

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