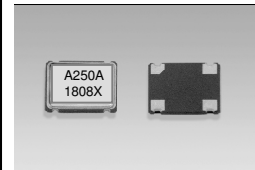


**SURFACE MOUNT CLOCK OSCILLATORS (Rohs Compliant / Lead Free)**  
**Oscillators SMD7x5mm (APO-SMD07 Series) 1.8V**



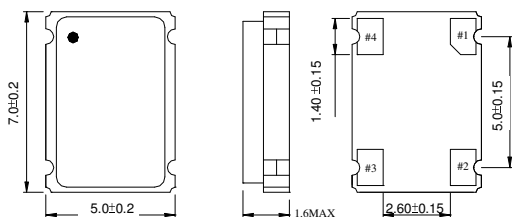
**- SPECIFICATIONS**

|   |                       |  |                         |                      |                 |
|---|-----------------------|--|-------------------------|----------------------|-----------------|
| <b>FREQUENCY RANGE</b>                      |                       | 1MHz TO 23.999MHz  | 24MHz TO 49.999MHz      | 50MHz TO 69.999MHz   | 70MHz TO 125MHz |
| <b>FREQUENCY STABILITY (ALL INCLUSIVE*)</b> |                       | ±20PPM, ±25PPM, ±50PPM, ±100PPM<br>(Lower stability on demand)                                     |                         |                      |                 |
| <b>TEMPERATURE RANGE</b>                    | <b>OPERATING</b>      | 0°C TO +70°C STANDARD  |                         |                      |                 |
|   | <b>STORAGE (MAX.)</b> | -40°C TO +85°C EXTENDED  |                         |                      |                 |
| <b>AGING (FIRST YEAR)</b>                   |                       | ±5PPM  |                         |                      |                 |
| <b>INPUT</b>                                | <b>VOLTAGE</b>        | +1.8VDC ±10%   |                         |                      |                 |
|   | <b>CURRENT (MAX.)</b> | 10mA   | 12mA                    | 15mA                 | 25mA            |
| <b>OUTPUT</b>                               | <b>LOAD</b>           | HCMOS  |                         | 30pF Max (15pF type) |                 |
|   | <b>SYMMETRY</b>       | NORMAL: 40% TO 60%   |                         |                      |                 |
|   |                       | TIGHT: 45% TO 55%  |                         |                      |                 |
|   | <b>VOLTAGE</b>        | <b>V<sub>OH</sub></b>  | 90% V <sub>DD</sub> min |                      |                 |
| <b>V<sub>OL</sub></b>                       |                       | 10% V <sub>DD</sub> max  |                         |                      |                 |
| <b>RISE/FALL TIME</b>                       |                       | 6nS Max (Tr: 10%V <sub>DD</sub> ~90%V <sub>DD</sub> , Tf: 90%V <sub>DD</sub> ~10%V <sub>DD</sub> ) |                         |                      |                 |
| <b>START-UP TIME</b>                        |                       | 10mS max   |                         |                      |                 |
| <b>PIN 1, TRI-STATE FUNCTION</b>            |                       | Pin 1=H or open... Output active at pin 3<br>Pin 1=L... high impedance at pin 3                    |                         |                      |                 |

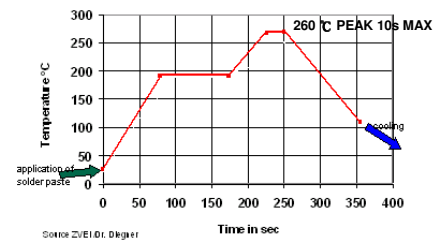


\*Include: 25°C tolerance, operating temperature range, input voltage change, aging 1st year, load change, shock and vibration

**- OUTLINE DIMENSIONS**

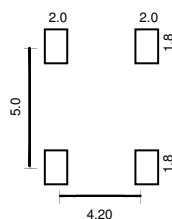


**- SOLDER REFLOW PROFILE**



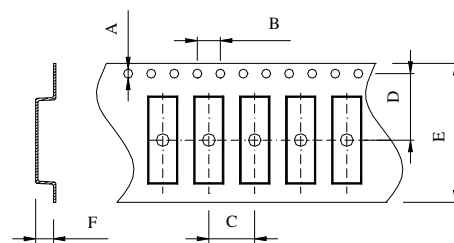
| PIN | CONNECTION   |
|-----|--------------|
| #1  | Tri-State/NC |
| #2  | GND          |
| #3  | Output       |
| #4  | +1.8VDC      |

**Recommended Solder Pattern**



Unit: mm

**- CARRIER TAPE DIMENSIONS (1,000 pcs/reel)**



| A       | B       | C       | D       | E        | F       |
|---------|---------|---------|---------|----------|---------|
| 1.5±0.1 | 4.0±0.1 | 8.0±0.1 | 7.5±0.1 | 16.0±0.3 | 2.0±0.1 |

| ORDERING CODE SYSTEM (VERSION 1.2 UPDATED MAY 2008) |   |           |               |   |  | EXAMPLE:            |
|---|---|-----------|---------------|---|--|---------------------|
| SERIES  | STABILITY   | FREQUENCY | INPUT VOLTAGE | TEMPERATURE RANGE                       | OPTIONAL / BLANK   | APO-SMD07D-25-1.8XT |
| APO-SMD07   | D: ±20PPM<br>E: ±25PPM<br>J: ±50PPM<br>P: ±100PPM | IN MHZ    | 1.8           | X: EXTENDED TEMPERATURE (-40 TO +85 °C) | T – TIGHT SYMMETRY<br>OTHERS – SPECIAL<br>BLANK - STANDARD |                     |

NON STANDARD FREQUENCIES AND SPECIFICATIONS ARE AVAILABLE ON REQUEST

Specifications are subject to change without notice