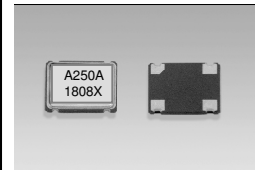


**SURFACE MOUNT CLOCK OSCILLATORS (Rohs Compliant / Lead Free)**  
**Oscillators SMD7x5mm (APO-SMD07 Series) 32.768KHz**



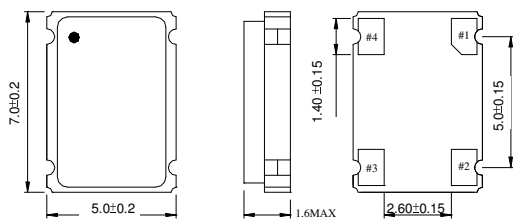
**- SPECIFICATIONS**

<b>FREQUENCY RANGE</b>		32.768KHz		
<b>FREQUENCY STABILITY (ALL INCLUSIVE*)</b>		±50PPM, ±100PPM		
<b>TEMPERATURE RANGE</b>	<b>OPERATING</b>	0°C TO +70°C STANDARD		
	<b>STORAGE</b>	-55°C TO +125°C		
<b>AGING (FIRST YEAR)</b>		±5PPM		
<b>INPUT</b>	<b>VOLTAGE</b>	+2.8VDC ±10%	+3.3VDC ±10%	
	<b>CURRENT (MAX.)</b>	12mA	15mA	
<b>OUTPUT</b>	<b>LOAD</b>	HCMOS LOAD 15pF		
	<b>SYMMETRY</b>	NORMAL: 40% TO 60%		
		TIGHT: 45% TO 55%		
	<b>VOLTAGE</b>	V <sub>OH</sub>	90% V <sub>DD</sub> min	
		V <sub>OL</sub>	10% V <sub>DD</sub> max	
<b>RISE/FALL TIME</b>	7nS Max		8nS 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 Pin 1=L... high impedance at pin 3		

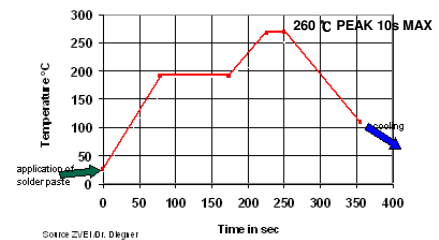


\*Include: 25°C tolerance, operating temperature range, input voltage change, aging 1st year, load change, shock and vibration

**- OUTLINE DIMENSIONS**

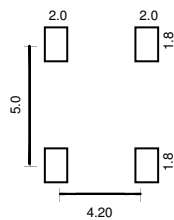


**- SOLDER REFLOW PROFILE**



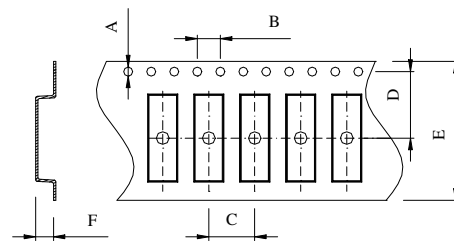
PIN	CONNECTION
#1	Tri-State/NC
#2	GND
#3	Output
#4	+2.8VDC / +3.3VDC

**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 1.0, JUNE 2008)						EXAMPLE:
SERIES	STABILITY	FREQUENCY	INPUT VOLTAGE	TEMPERATURE RANGE	OPTIONAL / BLANK	APO-SMD07J-32.768K-2.8
APO-SMD07	J: ±50PPM P: ±100PPM	IN KHZ	2.8 / 3.3	0 TO +70 °C	T – TIGHT SYMMETRY OTHERS – SPECIAL BLANK - STANDARD	

NON STANDARD FREQUENCIES AND SPECIFICATIONS ARE AVAILABLE ON REQUEST

Specifications are subject to change without notice