

CLOCK OSCILLATORS TTL / HCMOS COMPATIBLE
(Rohs Compliant / Lead Free)
Oscillators Half Size (APO-HTH Series) 3.3V



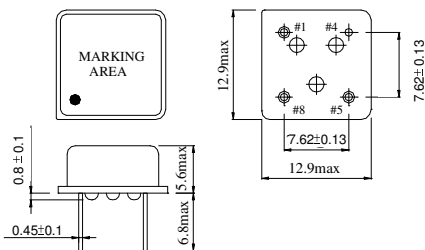
- SPECIFICATIONS

FREQUENCY RANGE		0.5MHz TO 23.999MHz	24MHz TO 49.999MHz	50MHz TO 69.999MHz	70MHz TO 150MHz
FREQUENCY STABILITY (ALL INCLUSIVE*)		±20PPM, ±25PPM, ±50PPM, ±100PPM			
TEMPERATURE RANGE	OPERATING	0°C TO +70°C STANDARD			
	STORAGE	-40°C TO +85°C EXTENDED			
AGING (FIRST YEAR)		±5PPM			
INPUT	VOLTAGE	+3.3VDC ±10%			
	CURRENT (MAX.)	15mA	20mA	30mA	45mA
OUTPUT	LOAD TTL	1 ~ 5TTL			
	LOAD HCMOS	~50M:30pF, ~150M:15pF			
	SYMMETRY	NORMAL: 40% TO 60%			
		TIGHT: 45% TO 55%			
	VOLTAGE	VOH	90% VDD min		
VOL		10% VDD max			
RISE/FALL TIME		8nS Max (Tr: 10%VDD~90%VDD, Tf: 90%VDD~10%VDD)			
START-UP TIME		10mS max			

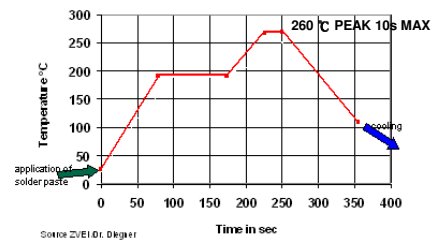


*Include: 25°C tolerance, operating temperature range, input voltage change, aging 1st year, load change, shock and vibration

- OUTLINE DIMENSIONS



- SOLDER REFLOW PROFILE



PIN	CONNECTION
#1	NC
#4	Ground
#5	Output
#8	VDD

Packaging : 40 pcs/tube

Unit: mm

ORDERING CODE SYSTEM (VERSION 1.1 UPDATED MAY 2008)						EXAMPLE:
SERIES	STABILITY	FREQUENCY	INPUT VOLTAGE	TEMPERATURE RANGE	OPTIONAL / BLANK	APO-HTHJ-25-3.3XT
APO-HTH	D: ±20PPM E: ±25PPM J: ±50PPM P: ±100PPM	IN MHZ	3.3	X: EXTENDED TEMPERATURE (-40 TO +85 °C)	T – TIGHT SYMMETRY OTHERS – SPECIAL BLANK - STANDARD	

NON STANDARD FREQUENCIES AND SPECIFICATIONS ARE AVAILABLE ON REQUEST

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Specifications are subject to change without notice