

- **FEATURES**
- ULTRA MINIATURE PACKAGE
- ABSOLUTE PULL RANGE TO 100 PPM
- COMMERCIAL OR INDUSTRIAL TEMPERATURE RANGES

- **SPECIFICATIONS**

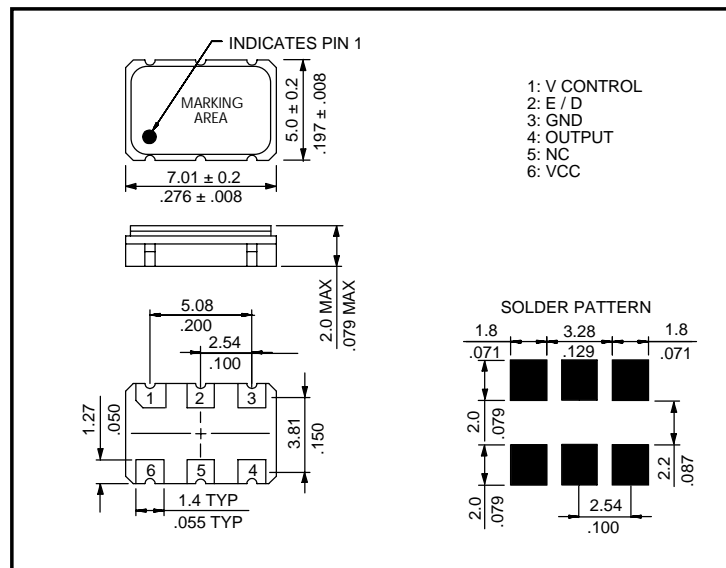
FREQUENCY RANGE	1.00 MHz TO 65.536 MHz
OPERATING TEMPERATURE RANGE	0°C TO +50°C 0°C TO +70°C -40°C TO +85°C
STORAGE TEMPERATURE RANGE	-55°C TO +110°C
OUTPUT WAVEFORM	HCMOS/TTL COMPATIBLE
LOAD	15 pF
JITTER, MAX	1 psec RMS (1σ, Fj>1 kHz)
SUPPLY VOLTAGE	+5 VDC ±5% OR 3.3 VDC ±5%
SUPPLY CURRENT	35 mA MAX
ABSOLUTE PULLING RANGE†	UP TO ±100 PPM OVER THE CONTROL VOLTAGE RANGE
SETTABILITY AT Vfo ††	+2.5 VDC ±0.5 VDC FOR 5.0 VDC OR +1.65 ±0.25 VDC FOR 3.3 VDC
CONTROL VOLTAGE RANGE	0 VDC TO +5.0 VDC FOR 5.0 VDC OR 0 VDC TO +3.3 VDC FOR 3.3 VDC
LINEARITY	±5.0 % TO 20 %
SLOPE	POSITIVE
MODULATION FREQUENCY BANDWIDTH	10 kHz (-3dB) MN
INPUT IMPEDANCE	10 KOHM MIN
ENABLE OPTION (PIN 2)	*1* HIGH OR OPEN
DISABLE OPTION (PIN 2)	*0* GROUND (OUTPUT PIN HIGH IMPEDANCE)
ABSOLUTE VOLTAGE RANGE	-0.5 TO +7.0 VDC FOR VCC AND VC (NON DESTRUCTIVE)



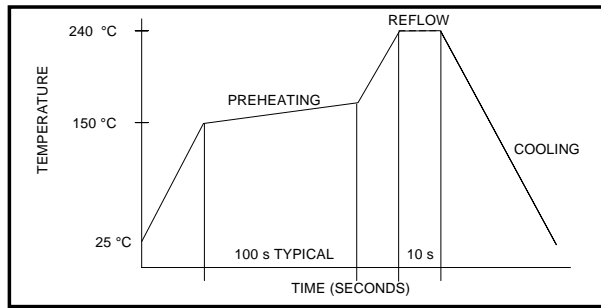
- **MECHANICAL CHARACTERISTICS**

MECHANICAL SHOCK	MIL-STD-202, METHOD 213, CONDITION E
THERMAL SHOCK	MIL-STD-883, METHOD 1011, CONDITION A
RANDOM VIBRATION	MIL-STD-883, METHOD 2007, CONDITION A
GROSS LEAK	100% LEAK TESTED
HERMETIC SEAL	LEAK RATE LESS THAN 0.05 PPM ATM x cc/s OF HELIUM
SOLDERING CONDITIONS	240° C ±5 s MAXIMUM FOR 10 s
MECHANICAL	SURFACE MOUNT, 6 PIN PER OUTLINE DRAWING

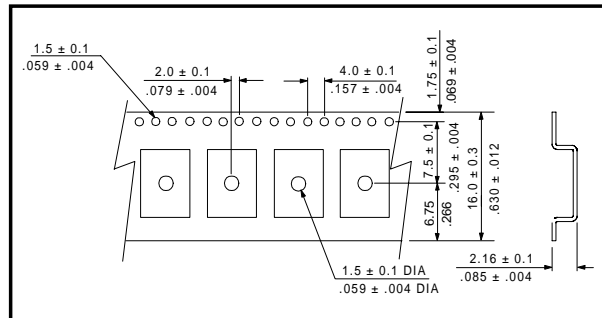
- **OUTLINE DRAWINGS**



#### ● SOLDER REFLOW PROFILE



#### ● CARRIER TAPE DIMENSIONS



#### ● PACKAGING

254 mm REEL DIAMETER, 16mm TAPE WIDTH, 8mm PITCH  
 QUANTITY: 2000 or 3000 PIECES PER REEL

#### ● OUTPUT AND LOAD CHARACTERISTICS

CODE	OUTPUT CHARACTERISTICS
2	HCMOS (5.0 VDC) HCMOS/TTL COMPATIBLE VOH: +4.5 VDC MIN VOL: +0.5 VDC MAX Trise AND Tfall: 6 nsec MAX WITH STANDARD LOAD (20 TO 80%)
4	HCMOS (3.3 VDC) HCMOS/TTL COMPATIBLE VOH: +2.9 VDC MIN VOL: +0.33 VDC MAX Trise AND Tfall: 5 nsec MAX WITH STANDARD LOAD (20 TO 80%)

#### ● PART NUMBERING SYSTEM

SERIES	OUTPUT	SYMMETRY	TEMPERATURE RANGE	ABSOLUTE MINIMUM PULL RANGE †	LINEARITY
VS	2: HCMOS (5.0 VDC) 4: HCMOS (3.3 VDC)	T: 50 ±5% A: 50 ±10%	R: 0 TO +50°C S: 0 TO +70°C U: -20 TO +70 V: -40 TO +85°C	F: ±32 PPM H: ±50PPM G: ±80 PPM J: ±100 PPM	L: ±5% A: ±10% Q: ±20%

\* NOT ALL ENVIRONMENTAL COMBINATIONS ARE POSSIBLE

\* CONSULT RALTRON FOR AVAILABILITY AND ORDERING INFORMATION

**EXAMPLE: VS2ASHA-14.31818**

**VCXO: 5x7 mm, HCMOS, 0 TO 70°C**

**ABSOLUTE PULL RANGE ±50 PPM, FREQUENCY 14.31818 MHz**

†Absolute Pull Range (APR) is the minimum guaranteed Frequency shift from Fo over variations in Temperature, Aging, Power Supply and Load.

††Vf0 is the Control Voltage at which the Output Frequency is equal to the nominal Frequency Fo.