

#### ● FEATURES

- STABILITY TO  $\pm 0.01$  PPM
- LOW AGING CHARACTERISTICS
- LOW PHASE NOISE

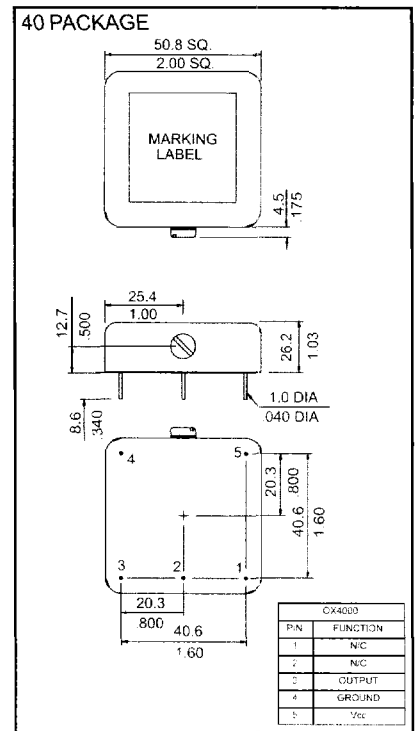
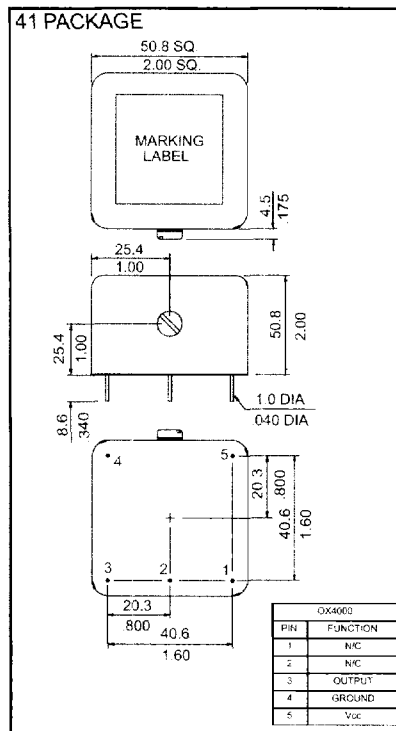
#### ● SPECIFICATIONS

FREQUENCY RANGE	5.00 MHz TO 100.00 MHz
FREQUENCY STABILITY VS. OPERATING TEMPERATURE	$\pm 0.1$ PPM OVER $-20^{\circ}\text{C}$ TO $+70^{\circ}\text{C}$ (AT-CUT) $\pm 0.01$ PPM OVER $-20^{\circ}\text{C}$ TO $+70^{\circ}\text{C}$ (SC-CUT) (OTHER STABILITIES TEMPERATURE ARE AVAILABLE)
FREQUENCY STABILITY VS. AGING	$\pm 1.0$ PPB PER DAY AND $\pm 0.15$ PPM FIRST YEAR TYPICAL (AT-CUT) $\pm 0.3$ PPB PER DAY AND $\pm 0.05$ PPM FIRST YEAR TYPICAL (SC-CUT)
OUTPUT WAVEFORM	SEE TABLE 1
LOAD	SEE TABLE 1
FREQUENCY STABILITY VS. LOAD VARIATION	$\pm 0.01$ PPM FOR $\pm 10\%$ VARIATION
SUPPLY VOLTAGE	$+12.0$ VDC $\pm 5\%$
FREQUENCY STABILITY VS. SUPPLY VARIATION	$\pm 0.001$ PPM FOR $\pm 5\%$ VARIATION
POWER CONSUMPTION	5.0 WATTS MAX FOR WARM-UP 2.0 WATTS MAX AT STEADY STATE
FREQUENCY ADJUSTMENT RANGE	$\pm 5.0$ PPM TYPICAL (AT-CUT) $\pm 1.0$ PPM TYPICAL (SC-CUT)
CONTROL VOLTAGE RANGE	0 TO 10.0 +VDC
SLOPE	POSITIVE
LINEARITY	$\pm 10\%$
REFERENCE VOLTAGE	$+6.2$ VDC OPTIONAL REFERENCE
STORAGE TEMPERATURE RANGE	$-40^{\circ}\text{C}$ TO $+85^{\circ}\text{C}$

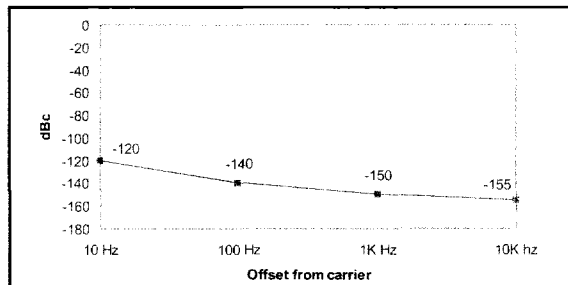
#### ● OUTPUT AND LOAD CHARACTERISTICS

TABLE 1		
OUTPUT TYPE	LOAD	RALTRON CODE
CLIPPED SINE	10K//20 pF	0
TTL	3/5/10 GATES	1
HC MOS	3/5/10 GATES	2
AC MOS	3/5/10 GATES	3
100K ECL	50 OHMS	5
SINEWAVE	50 OHMS	6
10K ECL	50 OHMS	7
PECL	50 OHMS	8
CUSTOM	TBD	9

#### ● OUTLINE DRAWING



#### ● PHASE NOISE CHARACTERISTICS



TYPICAL PHASE NOISE FOR HCMOS OUTPUT  
SINEWAVE OUTPUT IS -5 dBc/Hz BETTER

#### ● PART NUMBERING SYSTEM

TYPE	OUTPUT TYPE	CRYSTAL CUT	PACKAGE TYPE	REVISION LEVEL	TEMPERATURE RANGE	FREQUENCY STABILITY	FREQUENCY
OX	TABLE 1 CODE	1: AT CUT 2: SC CUT	40 41	RALTRON ASSIGNED	HZ: $-20^{\circ}\text{C}$ TO $+70^{\circ}\text{C}$	10: 0.1 PPM 1: 0.01 PPM	IN MHZ

EXAMPLE: OX2140A-HZ-1-10.000