

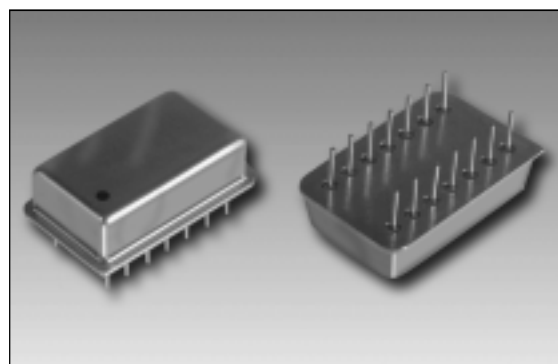
MILITARY STANDARD HIGH TEMPERATURE OSCILLATORS

hec, inc.

These dual in line Quartz Crystal Clock Oscillators are designed for use as clock generators and timing sources where high temperature, miniature size, and high reliability are of paramount importance. It is hermetically sealed to assure superior performance.

FEATURES:

- Temperatures up to 300°C
- Low profile: seated height only 0.200"
- DIP Types in Commercial & Military versions
- Wide frequency range: 1 Hz to 25 MHz
- Stability specification options from ± 20 to ± 1000 PPM



ELECTRICAL SPECIFICATIONS

Frequency Range	1 Hz to 25.000 MHz
Accuracy @ 25°C	$\pm 0.0015\%$
Supply Voltage, VDD	+5 VDC to +15VDC
Supply Current ID	1 mA max. at +5VDC 5 mA max. at +15VDC
Output Load	CMOS Compatible
Symmetry	50/50% $\pm 10\%$ (40/60%)
Rise and Fall Times	5 nsec max at +5V, CL=50pF 5 nsec max at +15V, RL=200k Ω
Logic '0' Level	+0.5V 50k Ω Load to input voltage
Logic '1' Level	VDD- 1.0V min, 50k Ω load to ground
Aging	5 PPM / Year max.
Storage Temperature	-65°C to +300°C
Operating Temperature	-25 +150°C up to -55 + 300°C
Stability	± 20 PPM ~ ± 1000 PPM

TESTING SPECIFICATIONS

- Seal tested per MIL-STD-202
- Hybrid construction to MIL-M-38510
- Available screen tested to MIL-STD-883
- Meets MIL-05-55310

ENVIRONMENTAL DATA

Vibration:	50G Peak, 2 kHz
Shock:	1000G, 1msec. Half Sine
Acceleration:	10,000G, 1 min.

MECHANICAL SPECIFICATIONS

Leak Rate	1 (10) ⁻⁸ ATM cc/sec Hermetically sealed package
Bend Test	Will withstand 2 bends of 90° reference to base
Marking	Epoxy ink, heat cured or laser mark
Solvent Resistance	Isopropyl alcohol, trichlorethane, freon for 1 minute immersion
Terminal Finish	Gold

PART NUMBERING GUIDE

Sample Part Number: C17SA-25.000M

C:	CMOS Oscillator
1:	Package drawing (1, 2, or 3)
7:	Temperature Range (see below)
S:	Temperature Stability (see below)
A:	Pin Connections

Temperature Range Options:

5: -25°C to +150°C	9: -55°C to +200°C
6: -20°C to +175°C	10: -55°C to +250°C
7: 0°C to +200°C	11: -55°C to +300°C
8: -20°C to +200°C	

Temperature Stability Options:

Q: ± 1000 PPM	S: ± 100 PPM
R: ± 500 PPM	T: ± 50 PPM
W: ± 200 PPM	U: ± 20 PPM

PIN CONNECTIONS

	OUTPUT	B-(GND)	B+	N.C.
A	8	7	14	1-6, 9-13
B	5	7	4	1-3, 6, 8-14
C	1	8	14	3-7, 9-13

