

HIGH-TEMPERATURE UP TO +225 °C CRYSTAL CLOCK OSCILLATORS (高温晶体振荡器)

Description:

Our high-temperature crystal oscillators consist of a source clock square wave generator, logic output buffers and/or logic divider stages, and a round AT-cut or IT-cut high-precision quartz crystal built in a wide selection of Dual-In-Line (DIP), Surface-Mount (SMD), or 7x5mm leaded or Surface-Mount (SMD) hermetically sealed packages

Features:

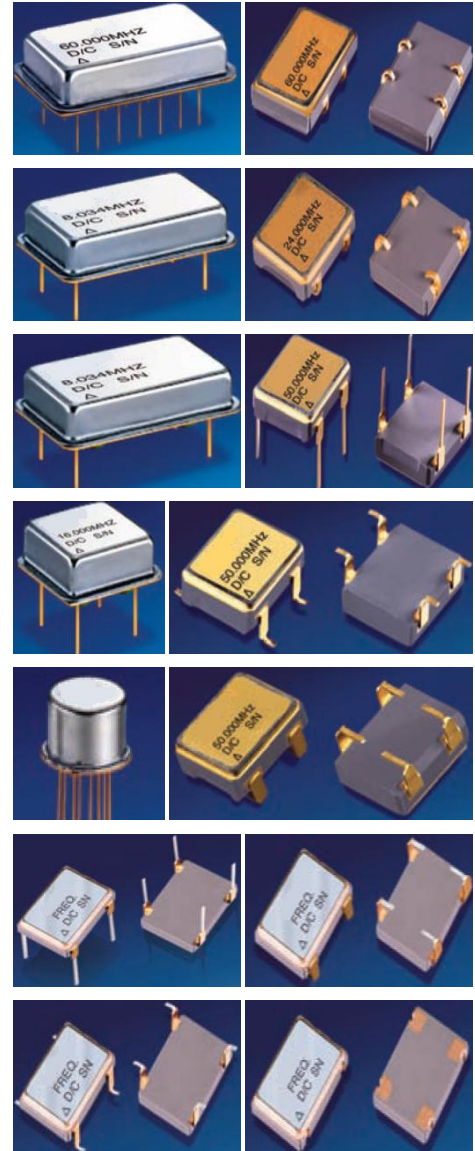
- ✚ ECCN: EAR99
- ✚ DFARS 252-225-7014 compliant: Electronic Component Exemption
- ✚ USML registration #M17677
- ✚ Wide frequency range: 1Hz to 110MHz
- ✚ **Wide operating temperature: -55 °C to +225 °C**
- ✚ Choice of output logic options (CMOS, AC MOS, HCMOS, LVHCMOS, TTL, Sine and Z outputs)
- ✚ Supply voltages: 3.3V to 15V
- ✚ Hermetically sealed package
- ✚ Tight or custom symmetry available
- ✚ Fast start-up time
- ✚ Capacitive load drive capability (Z output)
- ✚ Multiple outputs available
- ✚ Fundamental and third overtone designs
- ✚ 100% testing including at extreme temperatures
- ✚ Does not use pure lead or pure tin in its products
- ✚ RoHS compliant

Applications:

- ✚ Oil service industry
- ✚ Gas turbine controls
- ✚ Measurement while drilling, data-logging tools
- ✚ Industrial controls
- ✚ High-temperature switching power supplies modules

Materials:

- ✚ Standard AL₂O₃ thick-film substrate
- ✚ Standard gold (Au) and Aluminum (Al) wire bonding
- ✚ High-temperature non-conductive or Ag conductive epoxies
- ✚ Round or strip AT-cut fundamental or third-overtone quartz crystals
- ✚ Standard design for crystal mounting for high-shock (up to 36,000g for some packages)
- ✚ CMOS, HCMOS, LVHCMOS oscillator IC or discrete semiconductor used



Ordering Information:

HT	84	3	L	P	2	M	-	20M	Frequency
Package options: See package drawings									Screen options: Blank = No Screening M = Per MIL-PRF-55310, Level B
Supply voltage options: 3 = 3.3V +/- 10% 5 = 5.5V +/- 10% Available with 2.5V to 18V									
Logic options: C = CMOS A = ACMOS H = HCMOS L = LVHCMOS T = TTL S = SINE									Frequency stability options: 1 = +/-100ppm 2 = +/-150ppm 3 = +/-200ppm 4 = +/-250ppm 5 = +/-300ppm 6 = +/-350ppm 7 = +/-400ppm 8 = +/-450ppm
Operating temperature options: A = 0 °C to +150 °C B = 0 °C to +175 °C C = 0 °C to +200 °C D = 0 °C to +225 °C E = -20 °C to +150 °C F = -20 °C to +175 °C G = -20 °C to +200 °C H = -20 °C to +225 °C									I = -40 °C to +150 °C J = -40 °C to +175 °C K = -40 °C to +200 °C L = -40 °C to +225 °C M = -55 °C to +150 °C N = -55 °C to +175 °C O = -55 °C to +200 °C P = -55 °C to +225 °C

Other options:

- ✚ Tri-state output (May not be available in certain low frequencies and package types)
- ✚ Multiple outputs
- ✚ Phase locked output
- ✚ Low voltage / Low current
- ✚ Voltage control (VCXO / VCO)
- ✚ Hybridize customer's designs

Packages: (Other packages are available on request)

<p>Option code: 84</p> <p>Top View dimensions: 7.00±0.2 [0.276±0.008], 5.00±0.15 [0.197±0.006], 5.08±0.2 [0.2±0.008], 2.00 max. [0.079], 1.00 [0.04], 1.40 [0.055], 2.6 [0.102].</p> <p>Side View dimensions: 4.32 max. [0.17], 0.457±0.076 [0.018±0.003].</p> <p>Bottom View dimensions: 8.000 max. [0.315], 1.020 max. [0.04], 6.100±0.13 [0.24±0.005].</p>	<p>Option code: 88</p> <p>Top View dimensions: 8.890±0.13 [0.35±0.005], 7.370±0.13 [0.29±0.005], 5.080±0.13 [0.2±0.005].</p> <p>Side View dimensions: 4.32 max. [0.17], 0.457±0.076 [0.018±0.003].</p> <p>Bottom View dimensions: 8.000 max. [0.315], 1.020 max. [0.04], 6.100±0.13 [0.24±0.005].</p>	<p>Option code: 78</p> <p>Top View dimensions: 13.970±0.13 [0.55±0.005], 8.890±0.13 [0.35±0.005], 5.080±0.13 [0.2±0.005].</p> <p>Side View dimensions: 4.32 max. [0.17], 0.460±0.08 [0.018±0.003].</p> <p>Bottom View dimensions: 9.525 max. [0.375 max.], 4.318 max. [0.17 max.], 7.620±0.13 [0.3±0.005].</p>
<p>Option code: 41 (DIL 14, 4 pins)</p> <p>Top View dimensions: 12.83 max. [0.505], 20.32 max. [0.8 max.], 5.08 max. [0.2 max.].</p> <p>Side View dimensions: 5.08 max. [0.2 max.], 0.457 [0.018], 5.08 min. [0.2 min.].</p> <p>Bottom View dimensions: 15.24 [0.6], 7.62 [0.3].</p>	<p>Option code: 50 (DIL 08, 4 pins)</p> <p>Top View dimensions: 12.830 max. [0.505], 12.830 max. [0.505].</p> <p>Side View dimensions: 5.080 [0.2 max.], 6.350 [0.25 min.], 0.508 [0.2], 0.457 [0.018].</p> <p>Bottom View dimensions: 7.620 [0.3], 7.620 [0.3], Dia. 1.52 [Dia. 0.06].</p>	<p>Option code: 1</p> <p>Top View dimensions: 6.600 max. [0.26].</p> <p>Side View dimensions: 12.700 min. [0.5], 0.457 [0.018].</p> <p>Bottom View dimensions: 9.140 [0.36], 5.080 [0.2].</p>

Pin Functions:

Option No.	Vcc	GND	Output	E/D or NC
41	14	7	8	1
50	8	4	5	1
78, 88	4	2	3	1
84	4	2	3	1
1	8	4	5	1