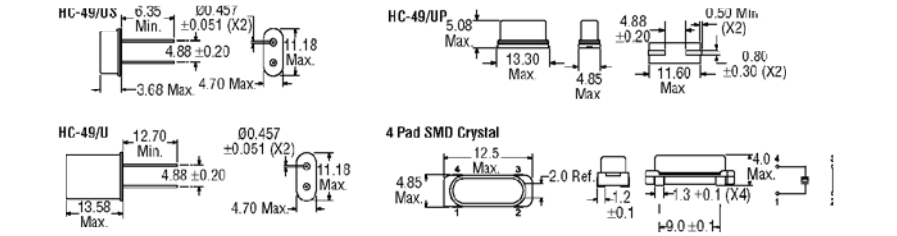


Microprocessor Crystals



Packages: HC-49/U, HC-49/US, HC-49/UP, 4 Pad SMD Crystal. Frequency Range: 1.8432 to 65 MHz (HC-49/U); 3.579545 to 60.000 MHz. Frequency Tolerance/Stability: ±50 ppm/±100 ppm. Operating Temperature Range: 0°C to -70°C. Load Capacitance: 18 pF (standard).

| HC-49/US | | | | | | |
|-----------|---------------|-----------------|-------|-----|-----------|--|
| Stock No. | Mfr.'s Type | Frequency Range | Load | ESR | EACH 1-24 | |
| 614-0062 | EC2-3.579545M | 3.579545 | 18 pF | 200 | .82 | |
| 614-0064 | EC2-3.6864M | 3.686400 | 18 pF | 200 | .82 | |
| 614-0066 | EC2-4.000M | 4.000000 | 18 pF | 200 | .82 | |
| 614-0068 | EC2-4.096M | 4.096000 | 18 pF | 200 | .75 | |
| 614-0070 | EC2-4.194304M | 4.194304 | 18 pF | 200 | .75 | |
| 614-0072 | EC2-4.9152M | 4.915200 | 18 pF | 200 | .75 | |
| 614-0074 | EC2-7.3728M | 7.372800 | 18 pF | 120 | .82 | |
| 614-0076 | EC2-8.192M | 8.192000 | 18 pF | 90 | .75 | |
| 614-0078 | EC2-10.000M | 10.000000 | 18 pF | 70 | .75 | |
| 614-0080 | EC2-11.0592M | 11.059200 | 18 pF | 70 | .74 | |
| 614-0082 | EC2-12.000M | 12.000000 | 18 pF | 70 | .68 | |
| 614-0084 | EC2-12.288M | 12.288000 | 18 pF | 70 | .68 | |
| 614-0086 | EC2-14.31818M | 14.318180 | 18 pF | 70 | .74 | |
| 614-0088 | EC2-14.7456M | 14.745600 | 18 pF | 70 | .74 | |
| 614-0090 | EC2-16.000M | 16.000000 | 18 pF | 50 | .74 | |
| 614-0092 | EC2-18.432M | 18.432000 | 18 pF | 50 | .68 | |
| 614-0094 | EC2-19.6608M | 19.660800 | 18 pF | 50 | .68 | |
| 614-0096 | EC2-20.000M | 20.000000 | 18 pF | 50 | .76 | |
| 614-0098 | EC2-24.000M | 24.000000 | 18 pF | 40 | .70 | |
| 614-0100 | EC2-24.576M | 24.576000 | 18 pF | 40 | .90 | |
| 614-0102 | EC2-25.000M | 25.000000 | 18 pF | 40 | .79 | |

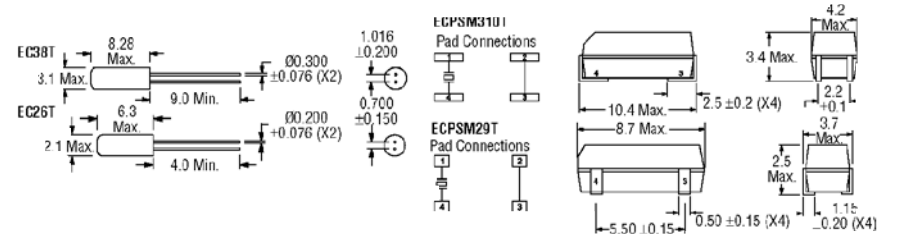
| HC-49/UP | | | | | | |
|----------|-----------------|-----------|-------|-----|-----|--|
| 614-0198 | EC2SM-3.579545M | 3.579545 | 18 pF | 200 | .83 | |
| 614-0104 | EC2SM-3.6864M | 3.686400 | 18 pF | 200 | .83 | |
| 614-0106 | EC2SM-4.000M | 4.000000 | 18 pF | 200 | .83 | |
| 614-0108 | EC2SM-4.096M | 4.096000 | 18 pF | 200 | .77 | |
| 614-0110 | EC2SM-4.194304M | 4.194304 | 18 pF | 200 | .77 | |
| 614-0112 | EC2SM-4.9152M | 4.915200 | 18 pF | 200 | .77 | |
| 614-0114 | EC2SM-7.3728M | 7.372800 | 18 pF | 120 | .77 | |
| 614-0116 | EC2SM-8.192M | 8.192000 | 18 pF | 90 | .77 | |
| 614-0118 | EC2SM-10.000M | 10.000000 | 18 pF | 70 | .77 | |
| 614-0120 | EC2SM-11.0592M | 11.059200 | 18 pF | 70 | .83 | |
| 614-0122 | EC2SM-12.000M | 12.000000 | 18 pF | 70 | .77 | |
| 614-0124 | EC2SM-12.288M | 12.288000 | 18 pF | 70 | .77 | |
| 614-0126 | EC2SM-14.31818M | 14.318180 | 18 pF | 70 | .83 | |
| 614-0128 | EC2SM-14.7456M | 14.745600 | 18 pF | 70 | .77 | |
| 614-0130 | EC2SM-16.000M | 16.000000 | 18 pF | 50 | .83 | |
| 614-0132 | EC2SM-18.432M | 18.432000 | 18 pF | 50 | .77 | |
| 614-0134 | EC2SM-19.6608M | 19.660800 | 18 pF | 50 | .77 | |
| 614-0136 | EC2SM-20.000M | 20.000000 | 18 pF | 50 | .91 | |
| 614-0138 | EC2SM-24.000M | 24.000000 | 18 pF | 40 | .91 | |
| 614-0140 | EC2SM-24.576M | 24.576000 | 18 pF | 40 | .91 | |
| 614-0142 | EC2SM-25.000M | 25.000000 | 18 pF | 40 | .83 | |

| HC-49/U | | | | | | |
|----------|------------|----------|-------|-----|------|--|
| 614-0002 | EC-1.8432M | 1.843200 | 18 pF | 650 | 1.76 | |
| 614-0004 | EC-2.000M | 2.000000 | 18 pF | 550 | 1.61 | |
| 614-0006 | EC-2.4576M | 2.457600 | 18 pF | 350 | 1.61 | |

| HC-49/U (continued) | | | | | | |
|---------------------|---------------|-----------|-------|-----|------|--|
| 614-0008 | EC-3.1872M | 3.187200 | 18 pF | 250 | 1.61 | |
| 614-0010 | EC-3.579545M | 3.579545 | 18 pF | 180 | .76 | |
| 614-0012 | EC-3.6864M | 3.686400 | 18 pF | 150 | .76 | |
| 614-0014 | EC-4.000M | 4.000000 | 18 pF | 100 | .76 | |
| 614-0016 | EC-4.096M | 4.096000 | 18 pF | 100 | .70 | |
| 614-0018 | EC-4.9152M | 4.915200 | 18 pF | 80 | .70 | |
| 614-0020 | EC-6.144M | 6.144000 | 18 pF | 50 | .70 | |
| 614-0022 | EC-7.3728M | 7.372800 | 18 pF | 40 | .70 | |
| 614-0024 | EC-8.000M | 8.000000 | 18 pF | 35 | .76 | |
| 614-0026 | EC-9.8304M | 9.830400 | 18 pF | 35 | .70 | |
| 614-0028 | EC-10.000M | 10.000000 | 18 pF | 30 | .70 | |
| 614-0030 | EC-10.738635M | 10.738635 | 18 pF | 30 | .70 | |
| 614-0032 | EC-11.0592M | 11.059200 | 18 pF | 30 | .70 | |
| 614-0034 | EC-11.288M | 11.288000 | 18 pF | 30 | .65 | |
| 614-0036 | EC-12.000M | 12.000000 | 18 pF | 30 | .70 | |
| 614-0038 | EC-12.288M | 12.288000 | 18 pF | 30 | .65 | |
| 614-0040 | EC-14.31818M | 14.318180 | 18 pF | 25 | .70 | |
| 614-0042 | EC-14.7456M | 14.745600 | 18 pF | 25 | .70 | |
| 614-0044 | EC-16.000M | 16.000000 | 18 pF | 25 | .70 | |
| 614-0046 | EC-16.9344M | 16.934400 | 18 pF | 25 | .65 | |
| 614-0048 | EC-18.432M | 18.432000 | 18 pF | 25 | .65 | |
| 614-0050 | EC-19.6608M | 19.660800 | 18 pF | 25 | .65 | |
| 614-0052 | EC-20.000M | 20.000000 | 18 pF | 25 | .74 | |
| 614-0054 | EC-22.5792M | 22.579200 | 18 pF | 25 | .90 | |
| 614-0056 | EC-24.000M | 24.000000 | 18 pF | 25 | .68 | |
| 614-0058 | EC-24.576M | 24.576000 | 18 pF | 25 | .68 | |
| 614-0060 | EC-25.000M | 25.000000 | 18 pF | 25 | .68 | |

| 4 Pad SMD Crystal | | | | | | |
|-------------------|-----------------|-----------|-------|-----|------|--|
| 614-0144 | EC3SM-3.579545M | 3.579545 | 18 pF | 200 | 1.26 | |
| 614-0146 | EC3SM-3.6864M | 3.686400 | 18 pF | 200 | 1.26 | |
| 614-0148 | EC3SM-4.000M | 4.000000 | 18 pF | 200 | 1.26 | |
| 614-0150 | EC3SM-4.096M | 4.096000 | 18 pF | 200 | 1.26 | |
| 614-0152 | EC3SM-4.194304M | 4.194304 | 18 pF | 200 | 1.26 | |
| 614-0154 | EC3SM-4.9152M | 4.915200 | 18 pF | 200 | 1.26 | |
| 614-0156 | EC3SM-7.3728M | 7.372800 | 18 pF | 120 | 1.26 | |
| 614-0158 | EC3SM-8.192M | 8.192000 | 18 pF | 90 | 1.26 | |
| 614-0160 | EC3SM-10.000M | 10.000000 | 18 pF | 70 | 1.26 | |
| 614-0162 | EC3SM-11.0592M | 11.059200 | 18 pF | 70 | 1.26 | |
| 614-0164 | EC3SM-12.000M | 12.000000 | 18 pF | 70 | 1.26 | |
| 614-0166 | EC3SM-12.288M | 12.288000 | 18 pF | 70 | 1.26 | |
| 614-0168 | EC3SM-14.31818M | 14.318180 | 18 pF | 70 | 1.26 | |
| 614-0170 | EC3SM-14.7456M | 14.745600 | 18 pF | 70 | 1.26 | |
| 614-0172 | EC3SM-16.000M | 16.000000 | 18 pF | 50 | 1.26 | |
| 614-0174 | EC3SM-18.432M | 18.432000 | 18 pF | 50 | 1.35 | |
| 614-0176 | EC3SM-19.6608M | 19.660800 | 18 pF | 50 | 1.35 | |
| 614-0178 | EC3SM-20.000M | 20.000000 | 18 pF | 50 | 1.43 | |
| 614-0180 | EC3SM-24.000M | 24.000000 | 18 pF | 40 | 1.45 | |
| 614-0182 | EC3SM-24.576M | 24.576000 | 18 pF | 40 | 1.45 | |
| 614-0184 | EC3SM-25.000M | 25.000000 | 18 pF | 40 | 1.45 | |

Watch Crystal

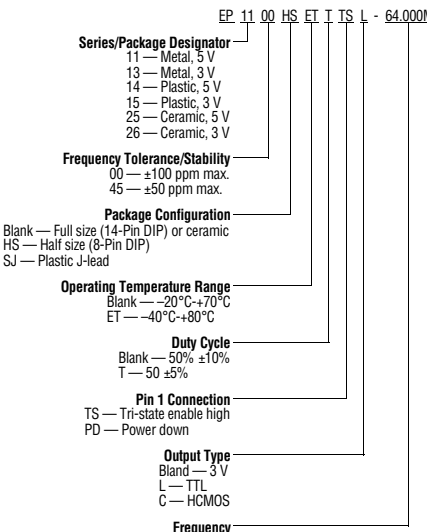
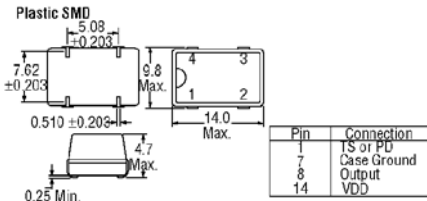
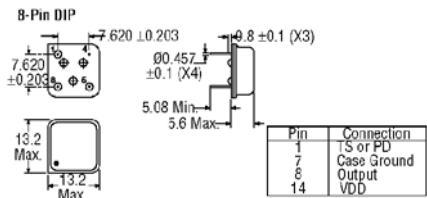
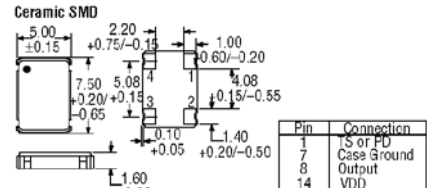
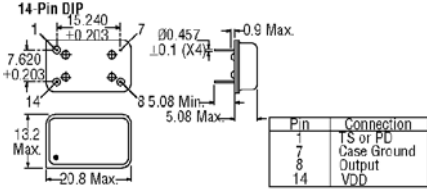


Package: EC26T, EC38T, ECPSM29T, ECPSM310T. Frequency: 32.768 kHz. Frequency Tolerance: ±20 ppm. Frequency Stability: -0.042 ppm/(Δ°C) 2 maximum, parabolic; turn over temperature at 25°C ±5°C. Operating Temperature Range: -10°C to +60°C, -40°C to +85°C (ECPSM310T). Load Capacitance: 6.0 pF or 12.5 pF.

| Watch Crystal | | | | |
|---------------|-------------|-----------------|---------|-----------|
| Stock No. | Mfr.'s Type | Frequency (kHz) | Load | EACH 1-24 |
| 614-0186 | EC38T | 32.768 | 12.5 pF | .30 |
| 614-0188 | EC26T | 32.768 | 12.5 pF | .41 |
| 614-0190 | EC26T1 | 32.768 | 6.0 pF | .41 |

| SMD Watch Crystal | | | | |
|-------------------|--------------------|-----------------|---------|-----------|
| Stock No. | Mfr.'s Type | Frequency (kHz) | Load | EACH 1-24 |
| 614-0192 | ECPSM29T-32.768K | 32.768 | 12.5 pF | 1.34 |
| 614-0194 | ECPSM310T-32.768K | 32.768 | 12.5 pF | 1.34 |
| 614-0196 | ECPSM310T1-32.768K | 32.768 | 6.0 pF | 1.34 |

EPO™ — Ecliptek Programmable Oscillators



The EPO™ series programmable oscillators from Ecliptek give you the ultimate flexibility for your applications. Custom programmed in any frequency from 1 to 125 MHz, you can have the exact product you need, right now. Available in four industry standard footprints, the EPO offers features such as -40°C to +85°C operating temperature range, ±50 ppm frequency stability, and tri-state or power down option. Electrical Specifications. Packages: 14 pin DIP, 8 pin DIP, plastic SMD, ceramic SMD. Supply Voltage: 3.3 V ±0.3 VDC or 5.0 VDC ±10%. Frequency Range: 1 to 106.25 MHz (3 V) or 1 to 125 MHz (5 V). Frequency Stability: ±100 ppm or ±50 ppm. Operating Temperature Range: -20°C to -70°C or -40°C to 85°C. Duty Cycle: 50 ±10% or 50 ±5%. Pin 1 Connection: Tri-state or power down. Order as special from Allied Electronics. Call Allied Electronics for all of your programmable oscillator needs, 1-800-433-5700.