

Crystals

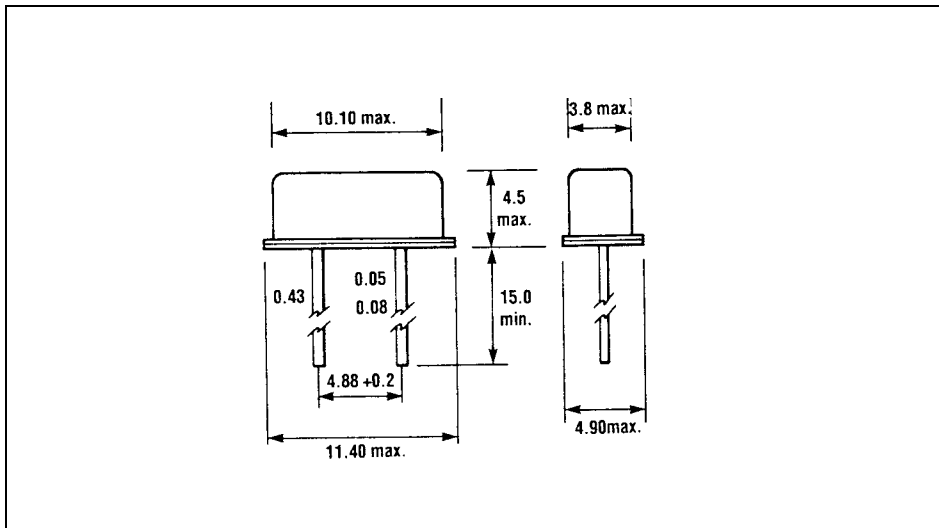
| Order code | Manufacturer code | Description |
|------------|-------------------|---|
| 90-0305 | n/a | 3.6864MHZ HC-49/S L/P CRYSTAL |
| 90-0310 | n/a | 4.0MHZ HC-49/S L/P CRYSTAL |
| 90-0315 | n/a | 4.194304MHZ HC-49/S LP CRYSTAL |
| 90-0320 | n/a | 4.9152MHZ HC-49/S L/P CRYSTAL |
| 90-0322 | n/a | 6.0MHZ HC-49/S L/P CRYSTAL |
| 90-0325 | n/a | 7.3728MHZ HC-49/S L/P CRYSTAL |
| 90-0340 | n/a | 8.0MHZ HC-49/S L/P CRYSTAL |
| 90-0345 | n/a | n/a |
| 90-0350 | n/a | 11.0592MHZ HC-49/S L/P CRYSTAL |
| 90-0370 | n/a | 16.0MHZ HC-49/S L/P CRYSTAL |
| 90-0372 | NC494/3.579545/20 | 3.579545MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0374 | NC494/4.433619/20 | 4.433619MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0376 | NC494/9.8304/30 | 9.8304MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0378 | NC494/10.000/30 | 10.0MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0380 | NC494/12.000/30 | 12.0MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0382 | NC494/20.000/30 | 20.0MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0384 | NC494/24.000/30 | 24.0MHZ HC-49/S CRYSTAL LOW PROFILE |
| 90-0386 | NC494/24.576/30F | 24.576MHZ SERIES HC-49/S CRYSTAL LOW/PR |
| 90-0388 | n/a | 14.3181MHZ HC-49/US |
| 90-0390 | n/a | 14.7456MHZ HC-49/US |
| 90-0392 | n/a | 18.432MHZ HC-49/US |
| 90-0394 | n/a | 32.00MHZ HC-49/US |
| 90-0460 | n/a | 5.00MHZ HC-49/S L/P CRYSTAL |
| 90-0462 | n/a | 7.68MHZ HC-49/S L/P CRYSTAL |
| 90-0464 | n/a | 9.216MHZ HC-49/S L/P CRYSTAL |
| 90-0466 | n/a | 15.00MHZ HC-49/S L/P CRYSTAL |
| 90-0468 | n/a | 16.9344MHZ HC-49/S L/P CRYSTAL |
| 90-1070 | n/a | 3.579545MHZ HC49/S CRYSTAL +-20PPM |
| 90-1072 | n/a | 3.6864MHZ HC49/S CRYSTAL +-20PPM |
| 90-1074 | n/a | 4.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-1076 | n/a | 6.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-1078 | n/a | 8.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-1080 | n/a | 10.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-1082 | n/a | 16.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-1084 | n/a | 20.00MHZ HC49/S CRYSTAL +-20PPM |
| 90-3056 | JO1228IOEADFL | 12.288MHZ HC49/US CRYSTAL LOW PROFILE |
| 90-3058 | JO1773IOEEAFL | 17.73447MHZ HC49/US CRYSTAL LOW PROFILE |
| 90-3060 | JO1966IOEDAFL | 19.6608MHZ HC49/US CRYSTAL LOW PROFILE |
| 90-3062 | JO2211IOEADFL | 22.1184 MHZ HC49/US CRYSTAL LOW PROFILE |
| 90-3064 | JO2500IOEADFL | 25.00MHZ HC49/US CRYSTAL LOW PROFILE |

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| The enclosed information is believed to be correct, Information may change 'without notice' due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E. | Revision A 04/07/2003 |

ACT HC-49/U4mm

Quartz Crystal-Low Profile

Dimensions (mm):



Specification (characteristics):

| PARAMETERS | SPECIFICATIONS | | CONDITIONS |
|------------------------------|----------------|--|----------------------|
| Frequency Range | Fo | 3.20MHz – 72.00MHz | |
| Frequency Mode | | Fundamental / 3 rd Overtone | |
| Frequency Tolerance | $\Delta f/f_0$ | $\pm 5\text{ppm}$, $\pm 10\text{ppm}$, $\pm 15\text{ppm}$, $\pm 30\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ | @ 25°C, |
| Operating Temperature | Topr | -10°C to +70°C Typical | |
| Storage Temperature | Tstg | -40°C to +85°C | |
| Temperature Stability | $\Delta f/f_0$ | $\pm 5\text{ppm}$, $\pm 10\text{ppm}$, $\pm 15\text{ppm}$, $\pm 30\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ | Over -20°C to +70°C, |
| Equivalent Series Resistance | R1 | See Table below | |
| Load Capacitance | CL | 12-32pF | Please specify |
| Shunt Capacitance | Co | 7pF Max. | |
| Drive Level | DL | 1.0mW $\pm 0.2\text{mW}$ | |
| Insulation Resistance | IR | 500M Ω | @ DC100V |
| Ageing (First Year) | Fa | $\pm 5\text{ppm max}$ | @ 25°C |

| Frequency (MHz) | ESR (W) Max | Mode |
|-----------------|-------------|--------------------|
| 3.2-3.50 | 300 | Fund. |
| 3.579545-3.6864 | 150 | Fund. |
| 4.0-4.433619 | 120 | Fund. |
| 4.608-5.120 | 100 | Fund. |
| 6.0-6.14 | 70 | Fund. |
| 6.750-8.00 | 60 | Fund. |
| 9.216-9.8304 | 50 | Fund. |
| 10.0-12.288 | 40 | Fund. |
| 14.31818-32.0 | 40 | Fund. |
| 25-30 | 150 | 3 rd OT |
| 30-50 | 100 | 3 rd OT |
| 50-72 | 80 | 3 rd OT |