



Data Sheet



Product Category: Quartz Crystals

| | | | |
|---------------|---------|------------------|---------------|
| Series Number | Package | Description | Last Modified |
| 152 | HC-25US | Weld Type Quartz | July. 01 2005 |

Quartz Crystal FEATURES

- Industry standard package
- Wide frequency range
- Low profile
- Excellent reliability/aging
- "AT Strip" blank technology
- Cost effective
- RoHs / Lead Free compliant



OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

| PARAMETERS | CONDITIONS | CHARACTERISTICS | UNITS |
|-----------------------|-------------|-----------------------|-------|
| Frequency Range | f_0 | 3.200 ~ 85.00 | MHz |
| Frequency Tolerance | Ref @ +25°C | ±10 ~ ±50 | PPM |
| Temperature Tolerance | T_L | ±20 ~ ±100 | PPM |
| Operating Temperature | T_{OPR} | -10 ~ +60 | °C |
| Storage Temperature | T_{STG} | -55 ~ +125 | °C |
| Shunt Capacitance | C_O | 7.0 max. | pF |
| Load Capacitance | C_L | 16, 20, 30, Series | pF |
| Drive Level | D_L | 0.01 ~ 1000.0 | µW |
| Aging (First Year) | @ +25°C | ±5.0 | PPM/Y |
| Insulation Resistance | I_R | 500 (DC100 ±10V) min. | Mohm |

MODE OF OSCILLATION AND EQUIVALENT SERIES RESISTANCE

| FREQUENCY RANGE (MHz) | MODE | ohm max. | FREQUENCY RANGE (MHz) | MODE | ohm max. |
|-----------------------|-------------|----------|-----------------------|--------------|----------|
| 3.200 ~ 3.500 | Fundamental | 200 | 12.000 ~ 14.000 | Fundamental | 50 |
| 3.510 ~ 4.090 | Fundamental | 150 | 14.100 ~ 17.000 | Fundamental | 40 |
| 4.100 ~ 4.790 | Fundamental | 120 | 17.100 ~ 27.000 | Fundamental | 30 |
| 4.800 ~ 5.790 | Fundamental | 100 | 27.100 ~ 48.000 | 3rd Overtone | 80 |
| 5.800 ~ 7.990 | Fundamental | 90 | 48.100 ~ 85.000 | 3rd Overtone | 60 |
| 8.000 ~ 11.990 | Fundamental | 70 | | | |

| 7.3728 | Std. | - | - | - | - | - | Std. | - |
|--------------------|-----------|----|----|------|----|----|------|------|
| 8.000 | Std. | - | - | - | - | - | - | Std. |
| 9.216 | Std. | - | - | - | - | - | Std. | - |
| 9.540 | Std. | - | - | - | - | - | - | - |
| 9.8304 | Std. | - | - | - | - | - | Std. | - |
| 10.000 | Std. | - | - | - | - | - | - | - |
| 10.738635 | Std. | - | - | - | - | - | - | - |
| 11.000 | Std. | - | - | - | - | - | - | - |
| 11.0592 | Std. | - | - | Std. | - | - | Std. | Std. |
| 11.520 | Std. | - | - | - | - | - | - | - |
| 11.98135 | Std. | - | - | - | - | - | - | - |
| 12.000 | Std. | - | - | - | - | - | Std. | Std. |
| 12.000393 | - | - | - | - | - | - | - | - |
| 12.096 | Std. | - | - | - | - | - | - | - |
| 12.288 | Std. | - | - | - | - | - | Std. | - |
| 12.960 | - | - | - | - | - | - | - | - |
| 14.31818 | Std. | - | - | - | - | - | Std. | - |
| 14.7456 | Std. | - | - | - | - | - | Std. | - |
| 15.000 | Std. | - | - | - | - | - | - | - |
| 15.360 | Std. | - | - | - | - | - | Std. | - |
| 16.000 | Std. | - | - | Std. | - | - | Std. | - |
| 16.000312 | - | - | - | - | - | - | - | - |
| 16.257 | Std. | - | - | - | - | - | Std. | - |
| 16.9344 | - | - | - | - | - | - | Std. | - |
| 17.734475 | Std. | - | - | - | - | - | - | - |
| 18.000 | Std. | - | - | - | - | - | Std. | - |
| 18.432 | Std. | - | - | - | - | - | Std. | - |
| 19.6608 | Std. | - | - | - | - | - | Std. | - |
| 20.000 | Std. | - | - | - | - | - | Std. | - |
| 21.47727 | Std. | - | - | - | - | - | - | - |
| 22.1184 | Std. | - | - | - | - | - | - | - |
| 24.000(F) | Std. | - | - | Std. | - | - | Std. | - |
| 24.00014 (F) | - | - | - | - | - | - | - | - |
| FREQUENCY (MHz) | Series | 12 | 13 | 16 | 17 | 18 | 20 | 30 |
| | LOAD (pF) | | | | | | | |

F = Fundamental | OT = 3RD Overtone

NOTE: Other frequencies and load capacitance available. PLEASE SPECIFY IN PART NUMBER GUIDE

Series No.: 152

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