

Marketing Bulletin

DATE: May 1st, 2008
TO: All Sales Personnel
FROM: Isaac Gonzalez
RE: Product Termination

To all concerned parties,

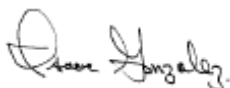
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective May 1st, 2008:

| Series | Description | Recommended Replacement |
|---------------|-----------------------------------|--------------------------------|
| EC | Resistance Welded HC-49/U Crystal | EU Series |

In compliance with our End of Life (EOL) policy, this will serve as advanced notice of product termination. New orders will not be accepted after September 1st, 2009, with delivery to conclude by December 31st, 2009.

If there are any questions pertaining to this bulletin, please feel free to contact me. Thank you again for your cooperation.

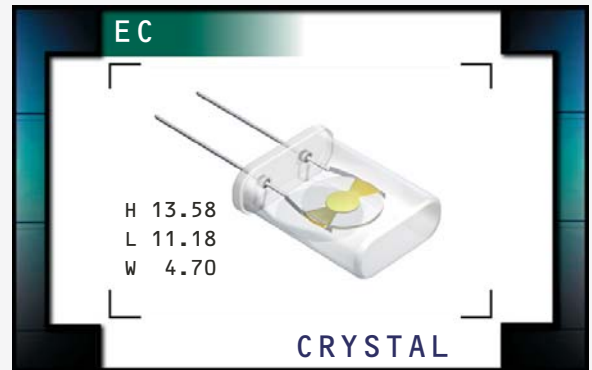
Best Regards,



Isaac Gonzalez
Configuration Manager
Ecliptek Corporation

EC Series

- HC-49/U package
- AT cut
- Resistance weld seal
- Tight tolerance/stability
- Tape and reel, vinyl sleeve, insulator tab, third lead, and custom lead length options available



NOTES

OBSOLETE

ELECTRICAL SPECIFICATIONS

| | |
|------------------------------------|---|
| Frequency Range | 1.8432MHz to 65.000MHz |
| Frequency Tolerance / Stability | ±50ppm / ±100ppm (Standard), ±30ppm / ±50ppm, |
| Over Operating Temperature Range | ±15ppm / ±30ppm, *±15ppm / ±20ppm, or ±10ppm / ±15ppm |
| Operating Temperature Range | 0°C to 70°C (Standard), -20°C to 70°C, or -40°C to 85°C |
| Aging (at 25°C) | ±5ppm / year Maximum |
| Storage Temperature Range | -40°C to 85°C |
| Shunt Capacitance | 7pF Maximum |
| Insulation Resistance | 500 Megaohms Minimum at 100V _{DC} |
| Drive Level | 2 mWatts Maximum |
| Load Capacitance (C _L) | 18pF (Standard), Custom C _L ≥ 10pF, or Series Resonant |

EQUIVALENT SERIES RESISTANCE (ESR), MODE OF OPERATION (MODE), AND CUT

| Frequency Range | ESR (Ω) | Mode / Cut | Frequency Range | ESR (Ω) | Mode / Cut |
|-----------------------|---------|------------------|------------------------|---------|---------------------|
| 1.8432MHz to 1.999MHz | 650 Max | Fundamental / AT | 4.100MHz to 4.999MHz | 80 Max | Fundamental / AT |
| 2.000MHz to 2.399MHz | 550 Max | Fundamental / AT | 5.000MHz to 5.999MHz | 75 Max | Fundamental / AT |
| 2.400MHz to 2.999MHz | 350 Max | Fundamental / AT | 6.000MHz to 6.999MHz | 50 Max | Fundamental / AT |
| 3.000MHz to 3.199MHz | 250 Max | Fundamental / AT | 7.000MHz to 7.999MHz | 40 Max | Fundamental / AT |
| 3.200MHz to 3.499MHz | 200 Max | Fundamental / AT | 8.000MHz to 9.999MHz | 35 Max | Fundamental / AT |
| 3.500MHz to 3.599MHz | 180 Max | Fundamental / AT | 10.000MHz to 12.999MHz | 30 Max | Fundamental / AT |
| 3.600MHz to 3.899MHz | 150 Max | Fundamental / AT | 13.000MHz to 32.768MHz | 25 Max | Fundamental / AT |
| 3.900MHz to 3.999MHz | 120 Max | Fundamental / AT | 24.000MHz to 29.999MHz | 60 Max | Third Overtone / AT |
| 4.000MHz to 4.099MHz | 100 Max | Fundamental / AT | 30.000MHz to 65.000MHz | 40 Max | Third Overtone / AT |

PART NUMBERING GUIDE

EC AT - 20 - 30.000M - G TR

FREQUENCY TOLERANCE / STABILITY

Blank=±50ppm at 25°C, ±100ppm from 0°C to 70°C
 A=±50ppm at 25°C, ±100ppm from -20°C to 70°C
 B=±50ppm at 25°C, ±100ppm from -40°C to 85°C
 C=±30ppm at 25°C, ±50ppm from 0°C to 70°C
 D=±30ppm at 25°C, ±50ppm from -20°C to 70°C
 E=±30ppm at 25°C, ±50ppm from -40°C to 85°C
 F=±15ppm at 25°C, ±30ppm from 0°C to 70°C
 G=±15ppm at 25°C, ±30ppm from -20°C to 70°C
 H=±15ppm at 25°C, ±30ppm from -40°C to 85°C
 J=±15ppm at 25°C, ±20ppm from 0°C to 70°C
 K=±15ppm at 25°C, ±20ppm from -20°C to 70°C
 L=±15ppm at 25°C, ±20ppm from -40°C to 85°C
 M=±10ppm at 25°C, ±15ppm from 0°C to 70°C
 N=±10ppm at 25°C, ±15ppm from -20°C to 70°C

PACKAGING OPTIONS

Blank=Bulk, A=Tray, TR=Tape and Reel

AVAILABLE OPTIONS

Blank=None (Standard), CLXXX=Custom Lead Length(pp46)
 G=Gull Wing, G3=Gull Wing & Metal Jacket (pp47)
 I2=Insulator Tab (pp48)
 L=Third Lead(pp48)
 L2=Alternate Third Lead (pp48)
 V=Vinyl Sleeving (pp48)

FREQUENCY

LOAD CAPACITANCE

Blank=18pF (Standard), S=Series, XX=XXpF (Custom)

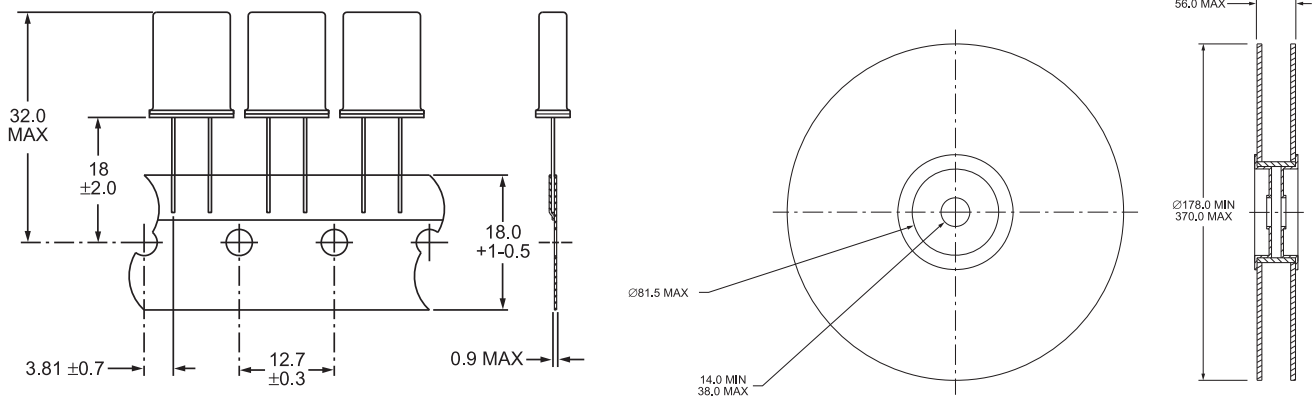
MODE OF OPERATION / CRYSTAL CUT

Blank=Fundamental / AT, T=Third Overtone / AT

MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



1000 Pieces per Reel
Compliant to EIA-468B

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

PARAMETER

Fine Leak Test
 Gross Leak Test
 Mechanical Shock
 Vibration
 Lead Integrity
 Solderability
 Temperature Cycling
 Resistance to Soldering Heat
 Resistance to Solvents

SPECIFICATION

MIL-STD-883, Method 1014, Condition A
 MIL-STD-883, Method 1014, Condition C
 MIL-STD-202, Method 213, Condition C
 MIL-STD-883, Method 2007, Condition A
 MIL-STD-883, Method 2004
 MIL-STD-883, Method 2002
 MIL-STD-883, Method 1010
 MIL-STD-883, Method 210
 MIL-STD-883, Method 215

MARKING SPECIFICATIONS

Line 1: ECLIPTEK

Line 2: E XX.XXXM

Frequency in MHz (5 Digits Maximum + Decimal)
 E or Blank (No Marking)

Line 3: XX

Ecliptek Manufacturing Identifier

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
CRYSTAL

SERIES
EC

PACKAGE
HC-49/U

CLASS
CR05

REV. DATE
11/07