

Marketing Bulletin

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

To all concerned parties,

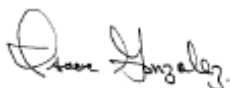
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective May 1st, 2008:

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.

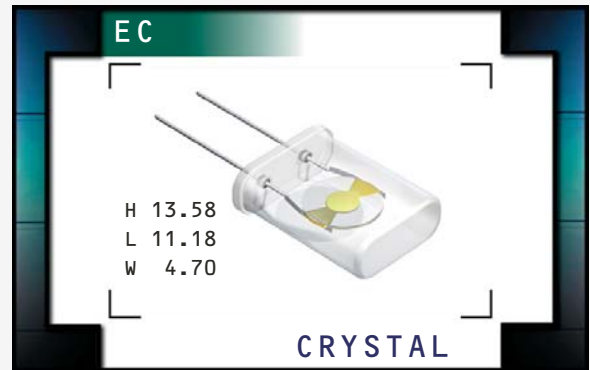
Best Regards,



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)

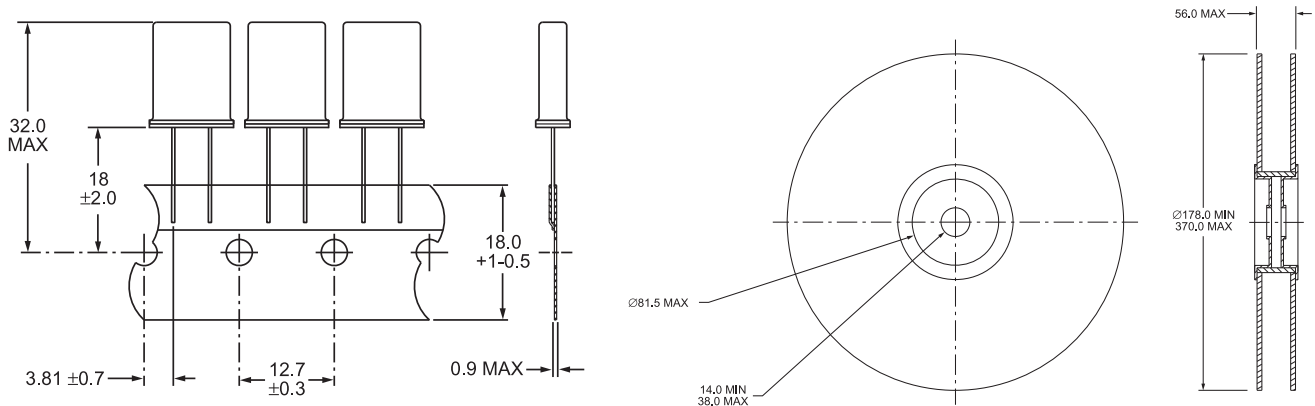
MODE OF OPERATION / CRYSTAL CUT

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