

Marketing Bulletin

DATE: June 23rd, 2006
TO: All Sales Personnel
FROM: Mark Stoner
RE: Product Termination

To all concerned parties,

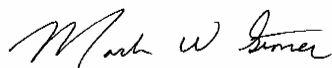
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective July 1st, 2006:

Series	Description	Recommended Replacement
EC3SM1	Four pad SMD Crystal	EC3SM
EC4SM1	Four pad SMD Crystal	EC4SM

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 31st, 2006, with delivery to conclude by December 31st 2006.

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

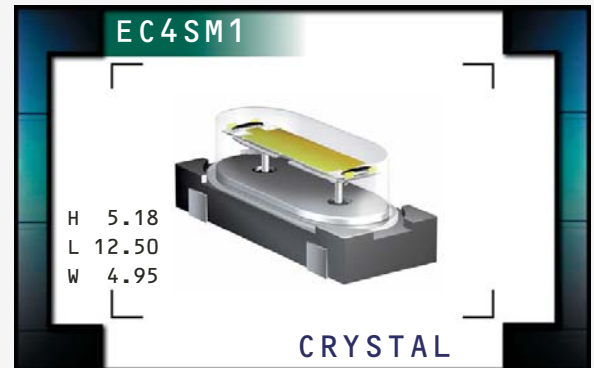
Best Regards,



Mark W. Stoner
Vice President of Marketing
Ecliptek Corporation

EC4SM1 Series

- Four pad surface mount package
- AT or BT cut available
- Resistance weld seal
- Tight tolerance/stability
- Interchangeable with plastic surface mount crystals
- Tape and reel available



NOTES

OBSOLETE

ELECTRICAL SPECIFICATIONS

Frequency Range	7.3728MHz, 20.000MHz, 30.000MHz, and 33.333MHz
Frequency Tolerance / Stability	±50ppm / ±100ppm (Standard), ±30ppm / ±50ppm (AT cut only), ±15ppm / ±30ppm (AT cut only), or ±15ppm / ±20ppm (AT cut only)
Operating Temperature Range	0°C to 70°C (Standard), -20°C to 70°C (AT cut only), or -40°C to 85°C (AT cut only)
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	1 mWatt Maximum
Load Capacitance (C_L)	18pF (Standard), Custom C _L ≥10pF, or Series Resonant

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

Nominal Frequency	ESR (Ω)	Mode / Cut	Nominal Frequency	ESR (Ω)	Mode / Cut
7.3728MHz	120 Max	Fundamental / AT	30.000MHz	40 Max	Fundamental / AT
20.000MHz	50 Max	Fundamental / AT	33.333MHz	40 Max	Fundamental / BT

PART NUMBERING GUIDE

EC4SM1 - B - 20 - 33.333M 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
 J=±15ppm at 25°C, ±20ppm from 0°C to 70°C

PACKAGING OPTIONS

Blank=Bulk, TR=Tape and Reel

FREQUENCY

LOAD CAPACITANCE

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

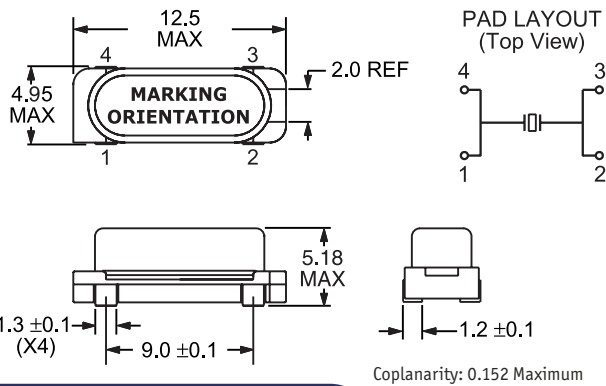
MODE OF OPERATION / CRYSTAL CUT

Blank=Fundamental / AT
 Fundamental / BT

OBSOLETE

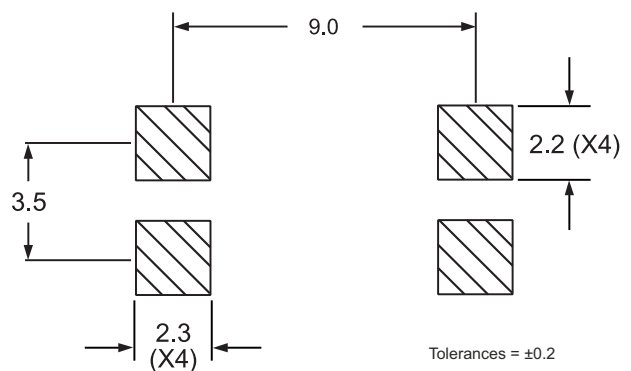
MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



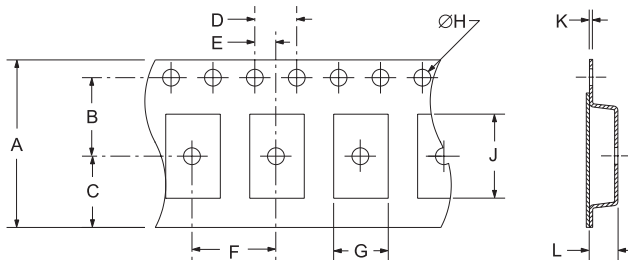
SUGGESTED SOLDER PAD LAYOUT

ALL DIMENSIONS IN MILLIMETERS

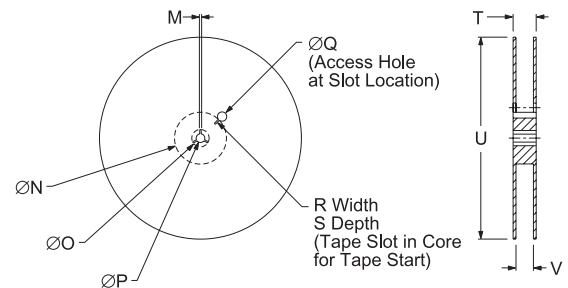


TAPE AND REEL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



TAPE	A	B	C	D	E
	24±.3	11.5±.1	10.75±.1	4±.1	2±.1
F	G	H	J	K	L
	12±.1	5.4±.1	1.5 ±.1	12.5±.1	.4±.05
					5.35±0.2



REEL	M	N	O	P	Q
	1.5 MIN	50 MIN	20.2 MIN	13±.2	40 MIN
R	S	T	U	V	QTY/REEL
	2.5 MIN	10 MIN	30.4 MAX	360 MAX	24,4+2-0
					1,000

*Compliant to EIA-481A

ENVIRONMENTAL/MECHANICAL SPECIFICATIONS

PARAMETER

Fine Leak Test
 Gross Leak Test
 Mechanical Shock
 Vibration
 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 2002
 MIL-STD-883, Method 1010
 MIL-STD-883, Method 210
 MIL-STD-883, Method 215

MARKING SPECIFICATIONS

Line 1: E XX.XXX

Frequency in MHz
 (5 Digits Maximum + Decimal)

MANUFACTURER
 ECLIPTEK CORP.

CATEGORY
 CRYSTAL

SERIES
 EC4SM1

PACKAGE
 EPOXY BASE

CLASS
 CR35

REV. DATE
 06/06