

## Marketing Bulletin

**DATE:** June 23<sup>rd</sup>, 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 1<sup>st</sup>, 2006:

<b>Series</b>	<b>Description</b>	<b>Recommended Replacement</b>
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 31<sup>st</sup>, 2006, with delivery to conclude by December 31<sup>st</sup> 2006.

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

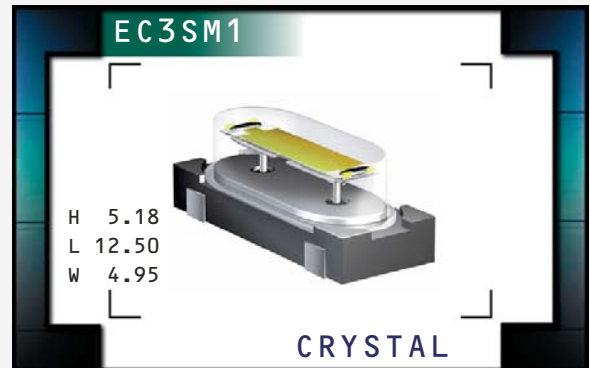
Best Regards,



Mark W. Stoner  
Vice President of Marketing  
Ecliptek Corporation

# EC3SM1 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

<b>Frequency Range</b>	4.000MHz, 7.3728MHz, 20.000MHz, and 30.000MHz
<b>Frequency Tolerance / Stability</b>	±50ppm / ±100ppm (Standard), ±30ppm / ±50ppm (AT cut only), ±15ppm / ±30ppm (AT cut only),
<b>Over Operating Temperature Range</b>	or ±15ppm / ±20ppm (AT cut only)
<b>Operating Temperature Range</b>	0°C to 70°C (Standard), -20°C to 70°C (AT cut only), or -40°C to 85°C (AT cut only)
<b>Aging (at 25°C)</b>	±5ppm / year Maximum
<b>Storage Temperature Range</b>	-40°C to 85°C
<b>Shunt Capacitance</b>	7pF Maximum
<b>Insulation Resistance</b>	500 Megaohms Minimum at 100V <sub>DC</sub>
<b>Drive Level</b>	1 mWatt Maximum
<b>Load Capacitance (C<sub>L</sub>)</b>	18pF (Standard), Custom C <sub>L</sub> ≥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
4.000MHz	200 Max	Fundamental / AT	30.000MHz	40 Max	Fundamental / AT
7.3728MHz	120 Max	Fundamental / AT	30.000MHz	40 Max	Fundamental / BT
20.000MHz	50 Max	Fundamental / AT			

## PART NUMBERING GUIDE

### EC3SM1 - B - 20 - 30.00M 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)

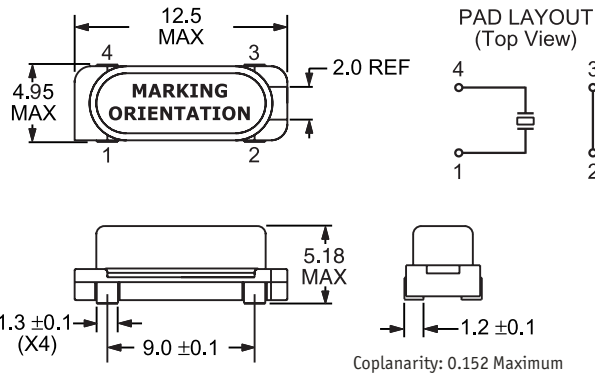
#### MODE OF OPERATION / CRYSTAL CUT

Blank=Fundamental / AT  
 B=Fundamental / BT

# OBSOLETE

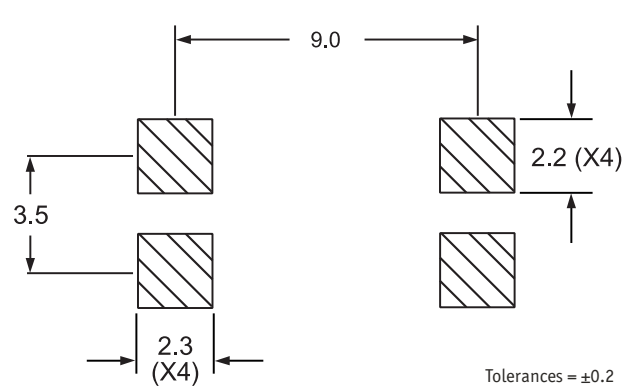
#### MECHANICAL DIMENSIONS

ALL DIMENSIONS IN MILLIMETERS



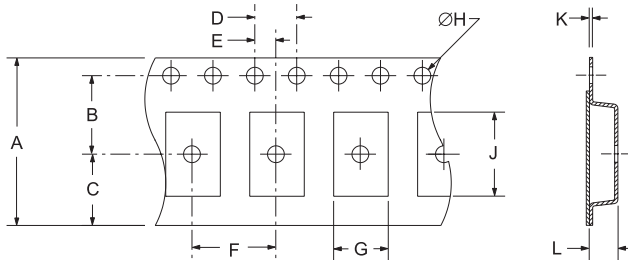
#### SUGGESTED SOLDER PAD LAYOUT

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	SPECIFICATION
Fine Leak Test	MIL-STD-883, Method 1014, Condition A
Gross Leak Test	MIL-STD-883, Method 1014, Condition C
Mechanical Shock	MIL-STD-202, Method 213, Condition C
Vibration	MIL-STD-883, Method 2007, Condition A
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-883, Method 210
Resistance to Solvents	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  
EC3SM1

PACKAGE  
EPOXY BASE

CLASS  
CR34

REV. DATE  
06/06