ECLIPTEK® CORPORATION

Marketing Bulletin

DATE: January 15th, 2007

TO: All Sales Personnel

FROM: Isaac Gonzalez

RE: Product Termination

To all concerned parties,

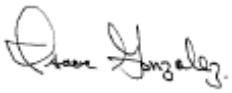
This bulletin is to notify all customers of the discontinuation of the following Ecliptek series effective January 15th, 2008:

Series	Description	Recommended Replacement
ECCM5B	3.5x6.0mm Ceramic 2Pad SMD Crystal	ECCM5A

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 January 1st, 2009, with delivery to conclude by April 1st, 2009.

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

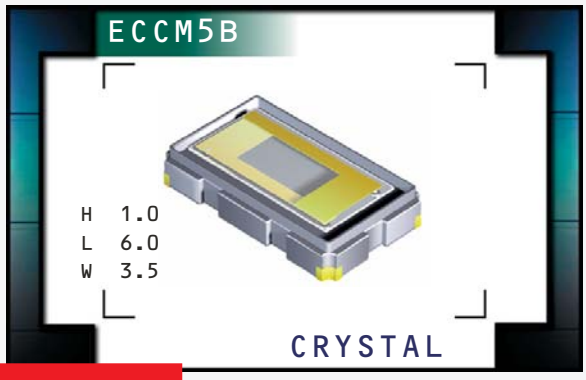
Best Regards,



Isaac Gonzalez
Configuration Manager
Ecliptek Corporation

ECCM5B Series

- RoHS Compliant (Pb-Free)
- Miniature two pad ceramic surface mount package
- AT cut
- Tight tolerance/stability
- Frequencies to 32.000MHz available
- Tape and reel available



NOTES

OBSOLETE

TABLE 1: PART NUMBERING CODES

Operating Temperature Range	X Denotes Availability	Code	Frequency Stability ±20ppm	±30ppm	±50ppm
			D	E	F
	-10°C to +60°C	A	X	X	X
	-20°C to +60°C	B	X	X	X
	0°C to +70°C	C	X	X	X
	-10°C to +70°C	D	X	X	X
	-20°C to +70°C	E	X	X	X

ELECTRICAL SPECIFICATIONS

Frequency Range	11.0592MHz to 32.000MHz
Frequency Tolerance	±30ppm, or ±50ppm
Frequency Stability	Per Table 1
Operating Temperature Range	Per Table 1
Aging (at 25°C)	±2ppm / year Maximum
Storage Temperature Range	-40°C to 85°C
Shunt Capacitance	5pF Maximum
Insulation Resistance	500 Megaohms Minimum at 100V_{DC}
Drive Level	100 µWatts Maximum
Load Capacitance (C_L)	18pF (Standard), $C_L \geq$10pF, or Series Resonant
Spurious Response	-3dB Minimum; F_0 to F_0 +5000ppm

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

Frequency Range	ESR (Ω)	Mode / Cut
11.0592MHz to 24.000MHz	50 Maximum	Fundamental / AT
24.001MHz to 32.000MHz	40 Maximum	Fundamental / AT

MANUFACTURER	CATEGORY	SERIES	PACKAGE	CLASS	REV. DATE
ECLIPTEK CORP.	CRYSTAL	ECCM5B	CERAMIC	CR39	09/03

PART NUMBERING GUIDE

ECCM5B 5 D C - 20 - 32.000M TR

FREQUENCY TOLERANCE (AT 25°C)
5=±30ppm, 6=±50ppm

FREQUENCY STABILITY
D=±20ppm, E=±30ppm, F=±50ppm

OPERATING TEMPERATURE RANGE
Per Table 1

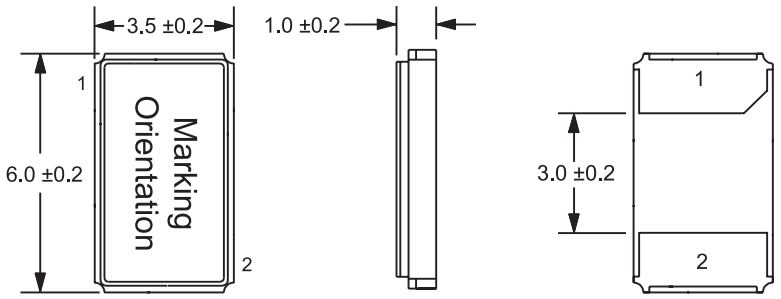
PACKAGING OPTIONS
Blank=Bulk, TR=Tape and Reel

FREQUENCY

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

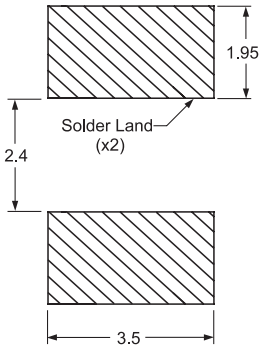
OBSOLETE

MECHANICAL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS



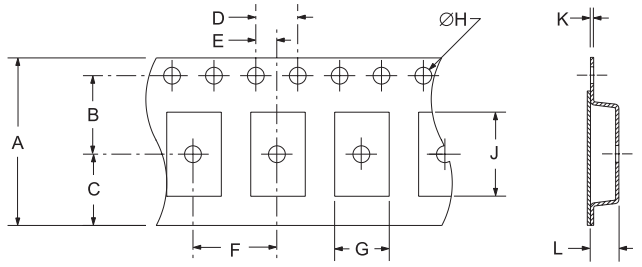
Pad 1: Input/Output
Pad 2: Input/Output

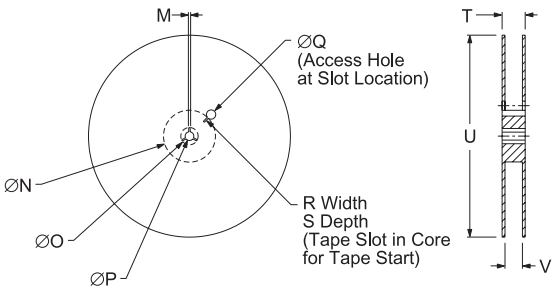
SUGGESTED SOLDER PAD LAYOUT
ALL DIMENSIONS IN MILLIMETERS



Tolerance = ±0.2

TAPE AND REEL DIMENSIONS
ALL DIMENSIONS IN MILLIMETERS





TAPE	A	B	C	D	E
	16±.3	7.5±.1	6.75±.2	4 ±.1	2±.05
F	G	H	J	K	L
8±.1	3.9±.1	1.5±.1	6.4±.1	.3 ±.05	1.3±.1

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	22.4 MAX	360 MAX	16.4+2-0	1,000

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
Lead Integrity	MIL-STD-883, Method 2004
Solderability	MIL-STD-883, Method 2002
Temperature Cycling	MIL-STD-883, Method 1010
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215

MARKING SPECIFICATIONS

*Compliant to EIA-481A

Line 1: E XX.XX
- Frequency in MHz (4 Digits Maximum + Decimal)

Line 2: XX Y ZZ
- Week of Year
- Last Digit of Year
- Ecliptek Manufacturing Identifier

MANUFACTURER	CATEGORY	SERIES	PACKAGE	CLASS	REV. DATE
ECLIPTEK CORP.	CRYSTAL	ECCM5B	CERAMIC	CR39	09/03