

SPECIFICATION FOR APPROVAL

CUSTOMER	:
PRODUCT TYPE	: SMD 3215 TUNING FORK TYPE
NOMINAL FREQ.	: 32.768KHz
EAS P/N	: EAS3215SB32.768KC5DLR3
REVISION	: S1
CUSTOMER P/N	:
PM / SALES	:
DATE	:
CUSTOMER SIGNA	TURE & Date
of the attached specifications. (2) Orders received and accepted by these specifications. (3) Any changes to these specific Product Specification Sheet will (4) Any issuance of purchase orc	der prior to consigning back the Approval page of "Specification Sheets" as the agreement on the contents of these specifications.
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5	
	RoHS Compliant



EAS CORPORATION

PRODUCT SPECIFICATION SHEET

PRODUCT TYPE : SMD 3215 TUNING FORK TYPE

NOMINAL FREQ. : 32.768KHz

EAS P/N : EAS3215SB32.768KC5DLR3

REVISION : S1

RD	QA	MFG

NOTE:

(1)Lead Free Products are "Directive 2002/95/EC of The European Parliament of 27 January 2003 on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment" Compliant (Attachment: SGS Test Report).

(2) Revision "Sx" is for engineering samples only. PE/RD's approval required.

(3)Revision "Ax" is production ready. PE, QA and MFG's approval required

RoHS Compliant

EAS CORPORATION EAS P/N: EAS3215SB32.768KC5DLR3 S1

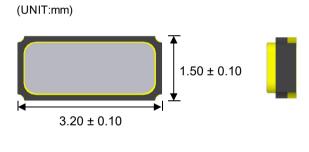
PAGE: 1

Rev	Revise page	Revise contents	<u>Date</u>	Ref.No.	Reviser
\$1	NA	Initial release	11-Jan-10	-	Duke Qiu

■ ELECTRICAL SPECIFICATIONS

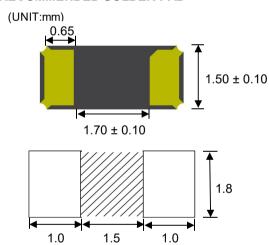
	Davametera	CVM		Electric	al Spec.		Notes
	Parameters	SYM.	MIN	TYPE	MAX	UNITS	Notes
1	Nominal Frequency	F0		32.768		KHz	-
2	Frequency Tolerance	-		± 20		ppm	at 25 ℃
3	Driver Level	DL	-	0.1	0.5	uW	-
4	Load Capacitance	CL		12.5		pF	-
5	Series Resistance	-	-	-	70	ΚΩ	-
6	Peak Temperature (Frequency)	-	20	25	30	$^{\circ}$	at 25 ℃ ±5℃
7	Frequency-Temperature coefficent	-	-	-	-4.0*10 ⁻⁸	\mathbb{C}^{2}	-
8	Storage Temperature	-	-55	~	125	$^{\circ}$	-
9	Operating Temperature	-	-40	~	85	$^{\circ}$	-
10	Shunt Capacitance	C0	-	1.05	-	pF	-
11	Motional Capacitance	C1	-	3.7	-	fF	-
12	Insulation Resistance	-	500	-	-	МΩ	at DC 100V±15V
13	Aging	-		±3	·	ppm	1st Year

■ DIMENSIONS



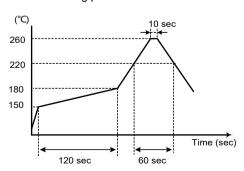


■ RECOMMENDED SOLDER PAD

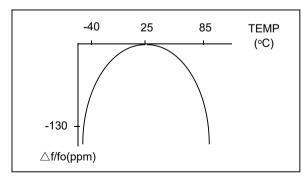


■ SUGGESTED REFLOW PROFILE

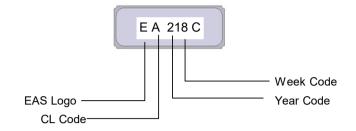
Total time : 200 sec. Max. Solder melting point :220 ℃



■ TEMPERATURE V.S FREQENCY CURVE



■ MARKING



Year Code:

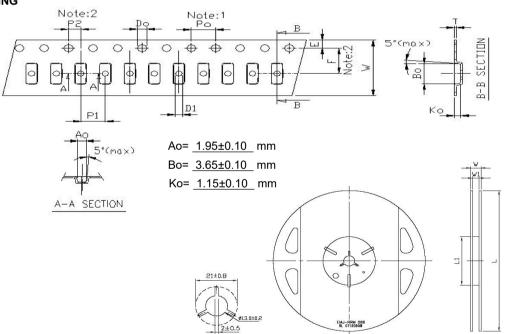
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0	1	2	3	4	5	6	7	8	9	0	1

PN:CL Code

KHz	PF	CODE	KHz	PF	CODE	KHz	PF	CODE	KHz	PF	CODE
32.768	12.5	Α	32.768	9	В	32.768	7	С	32.768	6	D

Production location:CHINA

■ PACKING



DIMENSIONS	K1	P0	P1	P2	D0	D1	Е	F	10P0	W	Т	pcs / Reel
	-	4	4	2	1.55	1.1	1.75	3.5	40	8	0.2	зк

REEL DIMENSIONS	W	W1	L	L1
REEL DIMENSIONS	11.4±1	9.0±0.3	180+0/-3	60+1/-0

REMARK:

- 1. 230 mm (9.05) minimum leader which consist of carrier and/or tape followed by a minimum of 160 mm (6.3) of empty carrier tape sealed with cover tape.
- 2. 160 mm (6.3) minimum trailer of empty carrier tape sealed with cover tape.

■ RELIABILITY SPECIFICATIONS

1.Mechanical Endurance

No.	Test Item	Test Me	thods	REF. DOC
1.1	Drop Test	150 cm height, fall freely onto concrete	e floor 3 times.	JIS C6701
1 2	Mechanical Shock	Device are shocked to half sine wave	(1000 G) three mutually	MIL-STD-202F
1.2	Mechanical Shock	perpendicular axes each 3 times. 0.5r	n sec. duration time	WIL-51D-202F
		Frequency range	10 ~ 2000 Hz	
		Amplitude	1.52 mm,20G	
1.3	Vibration	bration Sweep time 20 Perpendicular axes each test time 4 h		MIL-STD-883E
			(Total test time 12 hours)	
		Temperature	260 °C ± 5°C	
		Immersing depth	0.5 mm minimum	
1.4	Solderability	Immersion time	5 ± 1 seconds	MIL-STD-883E
		Flux	Rosin resin methyl alcohol	
			solvent (1:4)	

2.Environmental Endurance

No.	Test Item	Test Methods	REF. DOC
2.1	Resistance To Soldering Heat	Pre-heat temperature $125 ^{\circ}\text{C}$ Pre-heat time $60 ^{\circ}$ 120 sec.Test temperature $260 \pm 5 ^{\circ}\text{C}$ Test time $10 \pm 1 \text{sec.}$	MIL-STD-202F
2.2	High Temp. Storage	+ 125 °C ± 3 °C for 1000 ± 12 hours	MIL-STD-883E
2.3	Low Temp. Storage	- 40 °C ± 3 °C for 1000 ± 12 hours	WIL-STD-003L
2.4	Thermal Shock	Total 100 cycles of the following temperature cycle 125 ±3 °C 25 °C -55 ±3 °C 10 min. 10 min. max.	MIL-STD-883E
2.5	Pressure Cooker Storage	121 ± 3°C, RH100%, 2 bar, for 240 hours	JIS C6701
2.6	High Temp&Humidity	85°C ± 3°C, RH 85% , 1000Hrs	JIS C5023