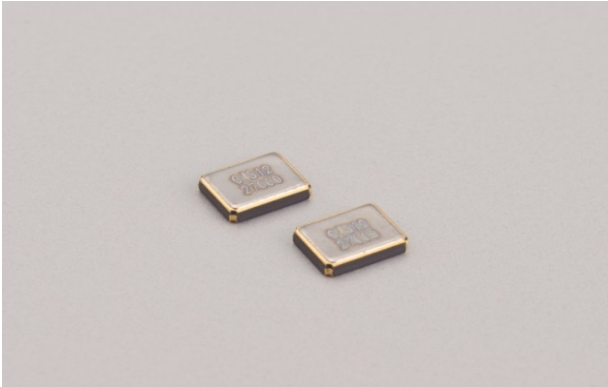


## AT-CUT CRYSTAL UNIT (SMD · Ceramic Package)

RoHS compliant / Pb free

# CS325S

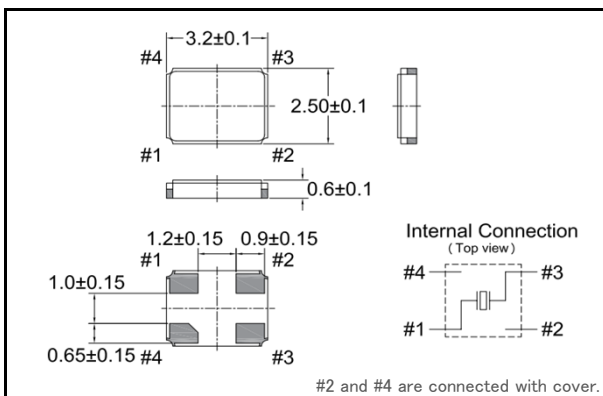
3,000pcs/reel



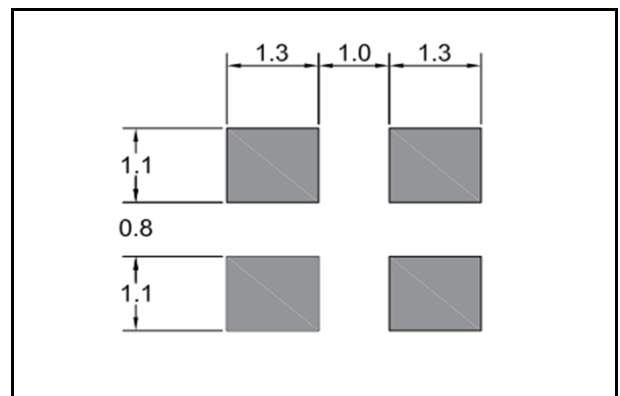
### ■ FEATURES

- Ultra-lightweight microminiature AT Crystal units SMD type
- Frequency range : 12.0 ~ 54.0MHz
- External dimensions (mm)  
L : 3.3 x W : 2.6 x H : 0.7
- Applications  
Small mobile devices / Consumer products

### ■ DIMENSION [mm]



### ■ SOLDER PAD LAYOUT [mm]



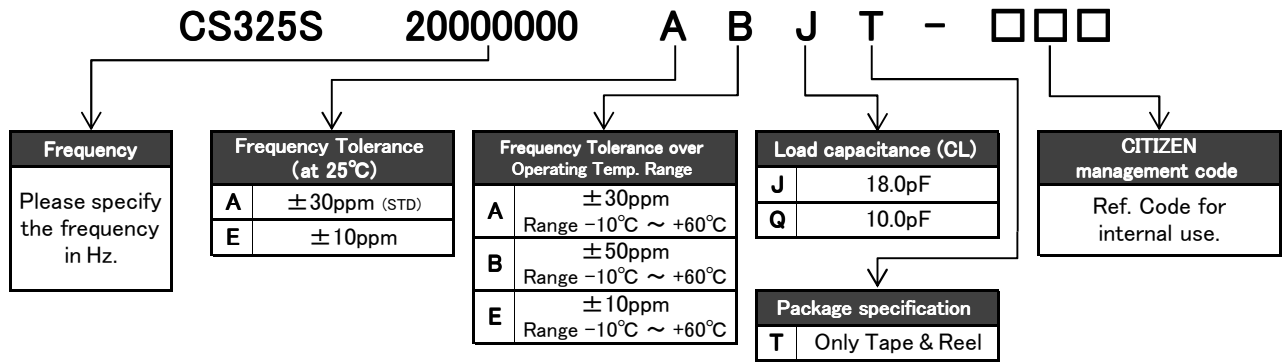
### ■ STANDARD SPECIFICATIONS

Item	Model	CS325S	Conditions
Nominal Frequency	$f_0$	12.0MHz ~ 54.0MHz (Fundamental)	Please contact us for frequencies available
Frequency Tolerance	$\Delta f/f_0$	$\pm 30$ ppm	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	$\pm 30$ ppm	-10°C ~ +60°C
Operating Temperature Range	$T_{OPR}$	-40°C ~ +85°C	
Storage Temperature Range	$T_{STR}$	-55°C ~ +125°C	
Motional (series) resistance	$R_1$	Refer to the following table	at 25°C
Load capacitance	$C_L$	10.0pF ~ $\infty$	Please specify your requirement
Shunt capacitance	$C_0$	5.0pF Max.	
Level of drive	DL	100 $\mu$ W Max.	
Insulation Resistance	$I_R$	500M $\Omega$ Min.	DC100V $\pm$ 15V
Aging (first year)	$\Delta f/f_0$	$\pm 5$ ppm Max.	25°C $\pm$ 3°C

### ■ MOTIONAL (SERIES) RESISTANCE ( $R_1$ )

Freq. Range (MHz)	$12.0 \leq f_0 < 16.0$	$16.0 \leq f_0 < 20.0$	$20.0 \leq f_0 < 30.0$	$30.0 \leq f_0 < 54.0$
$R_1$	150 $\Omega$ Max.	120 $\Omega$ Max.	80 $\Omega$ Max.	50 $\Omega$ Max.

## ■ PART NUMBERING SYSTEM



\*Please contact us for specifications available.

## ■ Part Marking [standard]

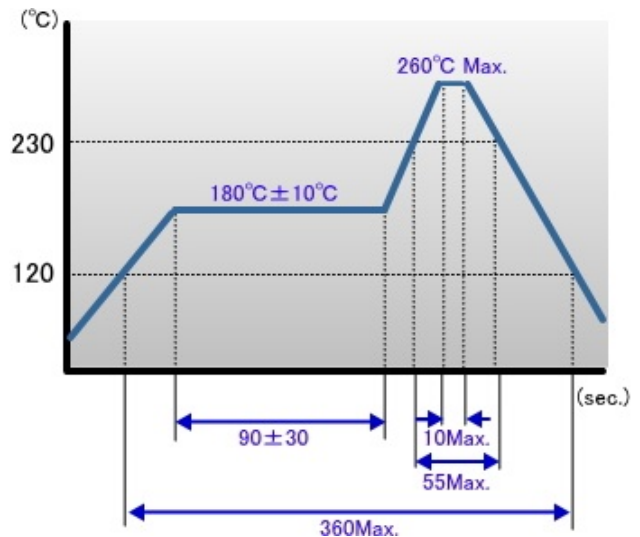


- C : Manufacture's ID Code
- y : The last digit of production year
- m : Production month (See Table.1)
- # : Production Lot No.
- f : The first 4 digits of Frequency including the decimal point

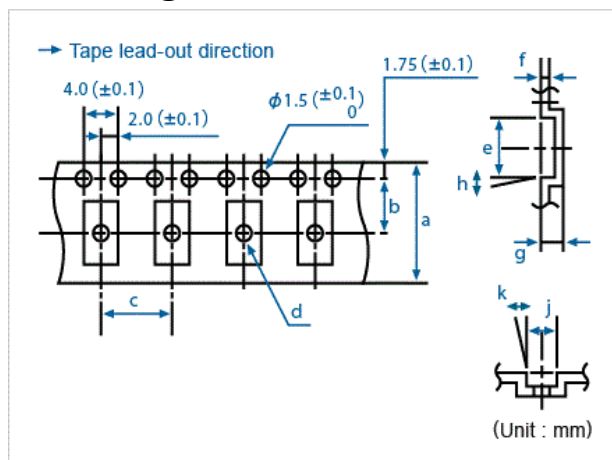
Table.1

Month	Jan	Feb	...	Sep	Oct	Nov	Dec
Code	1	2	...	9	X	Y	Z

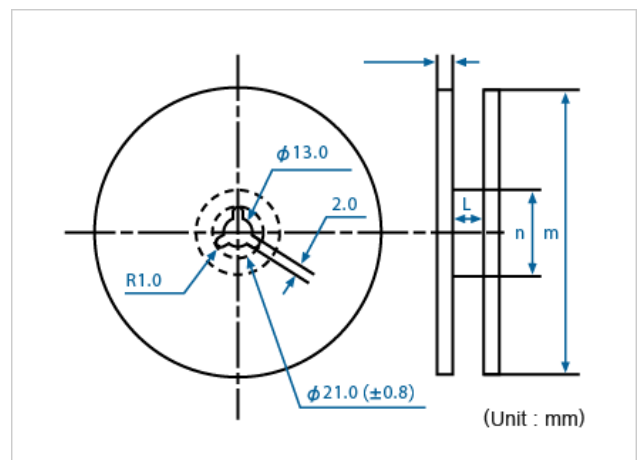
## ■ Reflow profile



## ■ Packing



Conforming to JIS C 0806 TB1208NEIAJ and RC-1009B TE1208N



Conforming to JIS C 0806 R12R and EIAJ RC-1009B R15

Q'ty/reel	a	b	c	d(φ)	e	f	g	h	j	k	l	m(φ)	n(φ)
3,000	8.0	3.5	4.0	1.1	3.5	0.25	0.75	5°	2.8	-	11.4	180	60

Rev.1