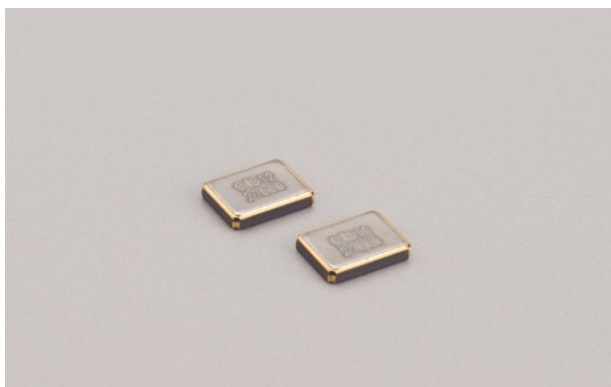


AT-CUT CRYSTAL UNIT (SMD · Ceramic Package)

RoHS compliant / Pb free

CS325S

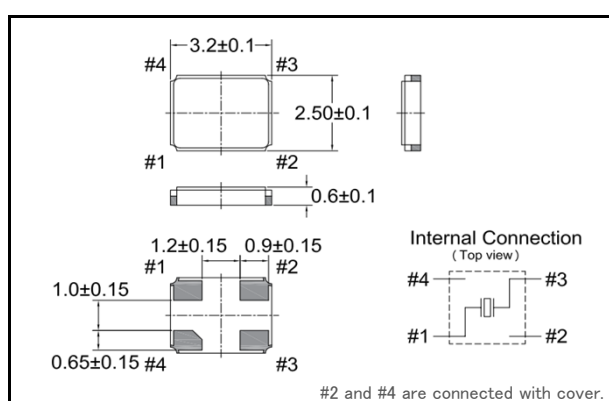
3,000pcs/reel



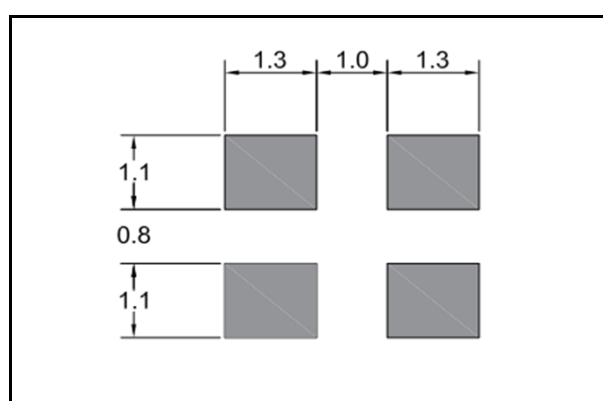
■ FEATURES

- 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]



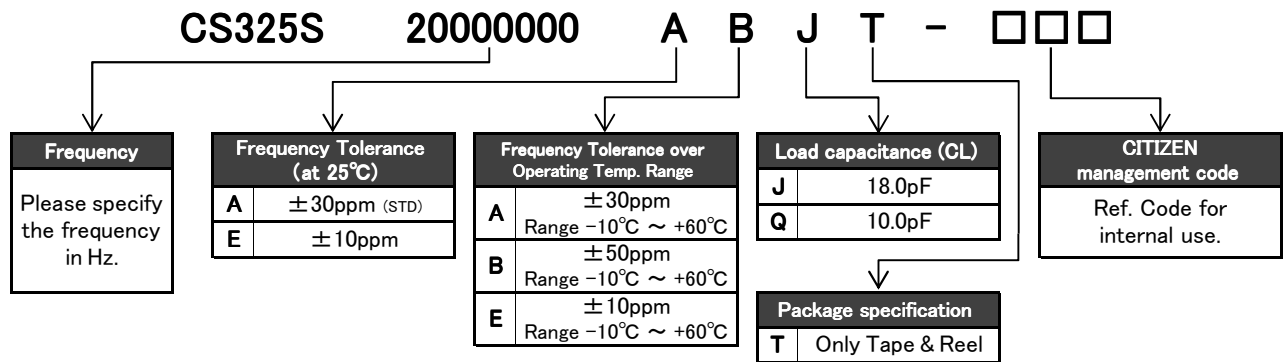
■ STANDARD SPECIFICATIONS

Item	Model	CS325S	Conditions
Nominal Frequency	f_0	12.0MHz ~ 54.0MHz (Fundamental)	Please contact us for frequencies available
Frequency Tolerance	$\Delta f/f_0$	$\pm 30\text{ppm}$	at 25°C
Frequency Tolerance over Operating Temperature Range	$\Delta f/f_0$	$\pm 30\text{ppm}$	-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 ~ ∞	Please specify your requirement
Shunt capacitance	C_0	5.0pF Max.	
Level of drive	D_L	100 μW Max.	
Insulation Resistance	I_R	500M Ω Min.	DC100V $\pm 15\text{V}$
Aging (first year)	$\Delta f/f_0$	$\pm 5\text{ppm}$ Max.	25°C $\pm 3^\circ\text{C}$

■ 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 Ω Max.	120 Ω Max.	80 Ω Max.	50 Ω 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)

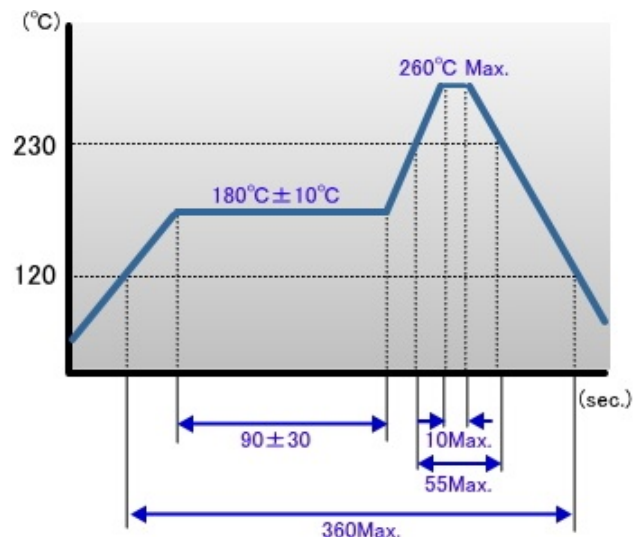
: Production Lot No.

f : The first 4 digits of Frequency including the decimal point

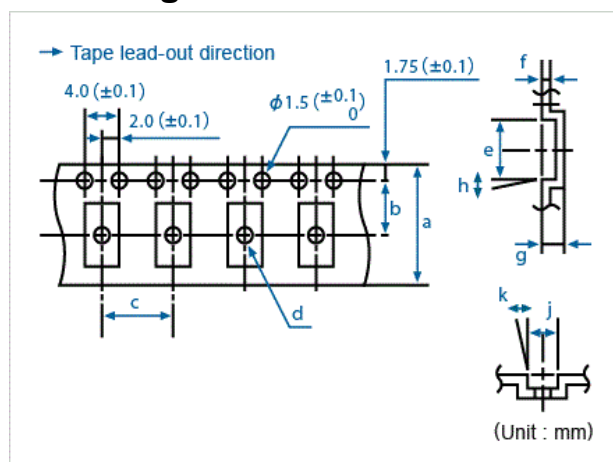
Table.1

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

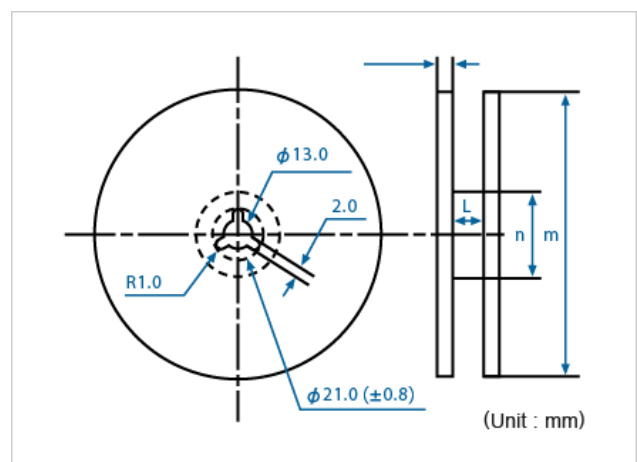
■ Reflow profile



■ 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