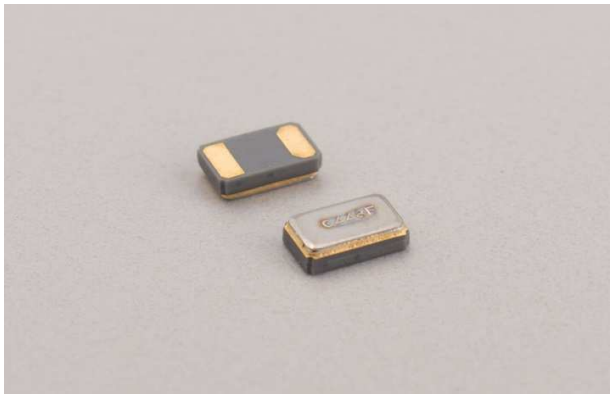
CITIZEN

TUNING FORK CRYSTAL UNIT (SMD · Ceramic Package)

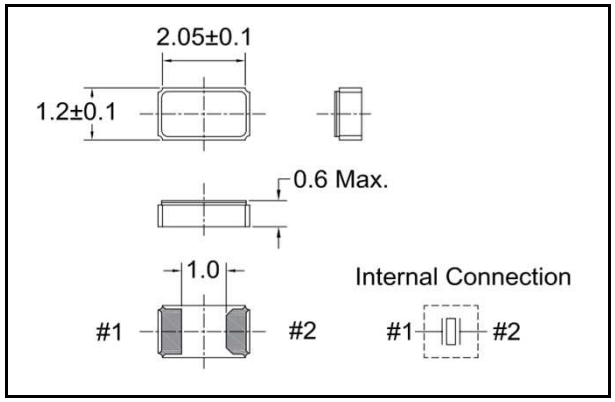
RoHS compliant / Pb free | **CM2012H** | **3,000pcs/reel**



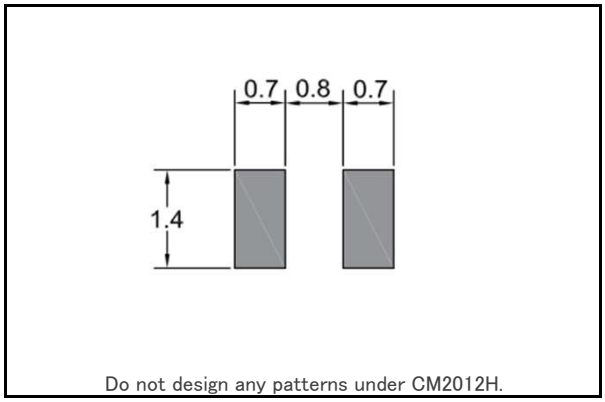
■ FEATURES

- Frequency range : 32.768kHz
- External dimensions (mm)
  L : 2.0 x W : 1.2 x H : 0.6
- Applications
  Small communication devices

■ DIMENSION [mm]



■ SOLDER PAD LAYOUT [mm]



Do not design any patterns under CM2012H.

■ STANDARD SPECIFICATIONS

Item / Model		CM2012H	Conditions
Nominal Frequency	f_0	32.768kHz	
Frequency Tolerance	$\Delta f/f_0$	±10ppm / ±20ppm	at 25℃
Load capacitance	C_L	6.0pF / 7.0pF / 9.0pF / 12.5pF	Please specify your requirement
Operating Temperature Range	T_{OPR}	−40℃ ～ +85℃	
Storage Temperature Range	T_{STR}	−55℃ ～ +125℃	
Turnover Temperature	T_M	25℃±5℃	
Temperature Coefficient	β	−0.033±0.003ppm/℃^{2}	
Motional (series) resistance	R_1	70KΩ Max.	at 25℃
Level of drive	D_L	1.0μW Max.	
Aging (first year)	$\Delta f/f_0$	±3ppm Max.	25℃±3℃
Shunt capacitance	C_0	1.3pF Typ.	

深圳市满度科技有限公司
Web:www.manduic.com
Tel:150-1290-5940
Email:sales@manduic.com
微信扫码咨询客服

CITIZEN

■ PART NUMBERING SYSTEM

CM2012H 32768 D Z F T - □□□

Frequency
Please specify the frequency in Hz.

Frequency Tolerance (at 25℃)	
D	±20ppm (STD)
E	±10ppm

Frequency Tolerance over Operating Temp. Range	
Z	Standard Spec.

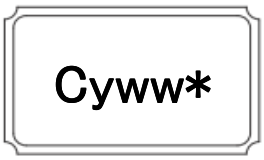
Load capacitance (CL)	
B	6.0pF
C	9.0pF (STD)
F	12.5pF (STD)
Y	7.0pF

Package specification	
T	Only Tape & Reel

CITIZEN management code
Ref. Code for internal use.

*Please contact us for specifications available.

■ Part Marking [standard]



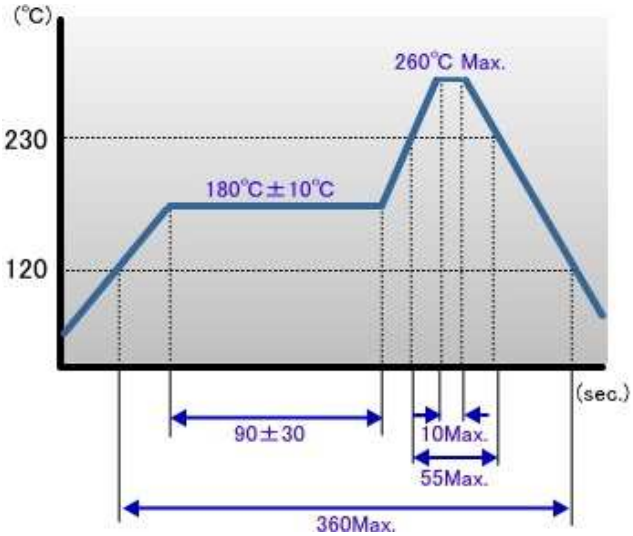
C : Manufacture's ID Code

y : The last digit of production year

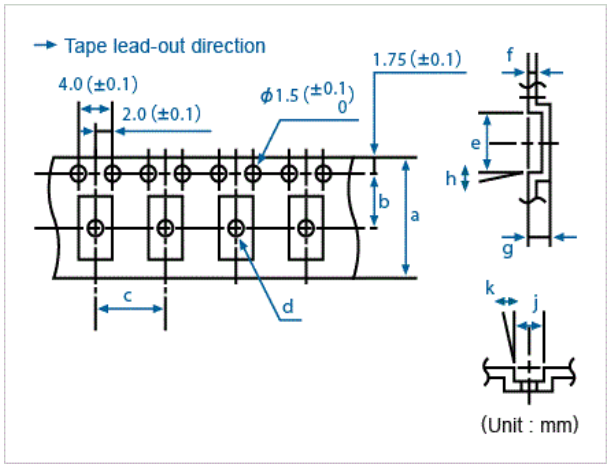
w : Production week code

* : CL Code B:6.0pF
C:9.0pF
F:12.5pF
Y:7.0pF

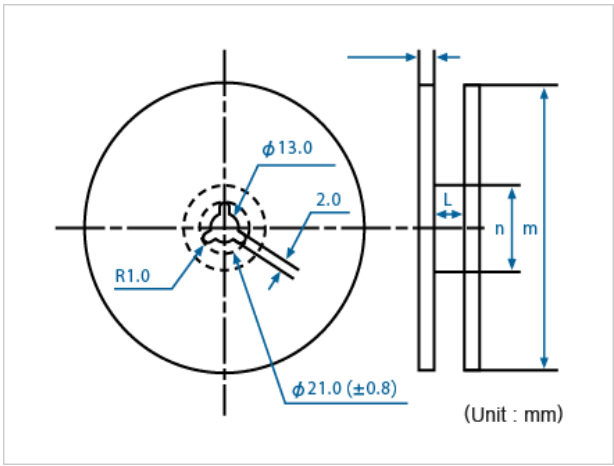
■ Reflow profile



■ 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	1.0	2.25	0.23	0.8	5°	1.4	5°	9.0	180	60

Product specifications are subject to change without notice.

Rev.2

深圳市满度科技有限公司
Web:www.manduic.com