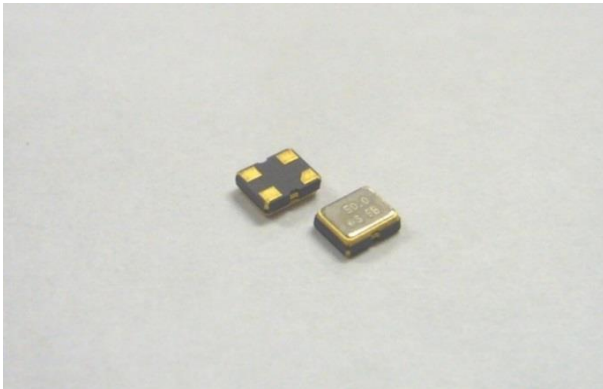


## CRYSTAL CLOCK OSCILLATORS (SMD · Ceramic Package)

RoHS compliant / Pb free

# CSX-252F

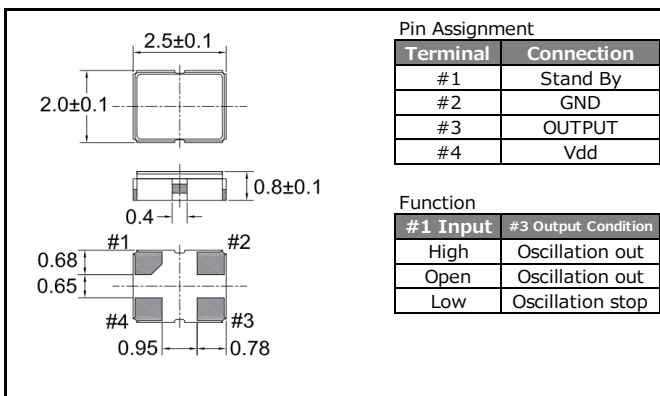
3,000pcs/reel



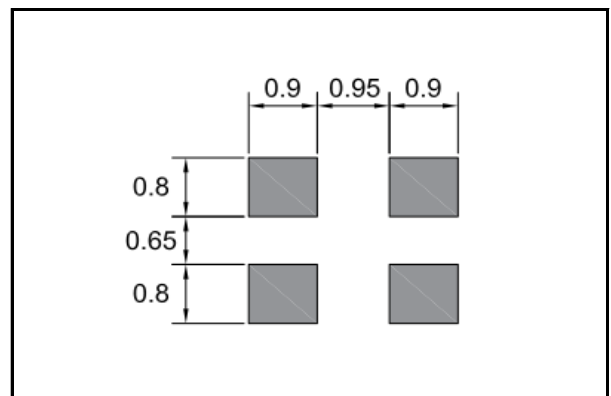
### FEATURES

- Low current consumption type
- Frequency range : 40.0 ~ 60.0MHz
- External dimensions (mm)  
L : 2.5 x W : 2.0 x H : 0.8
- Applications  
Small mobile devices / Consumer products

### DIMENSION [mm]



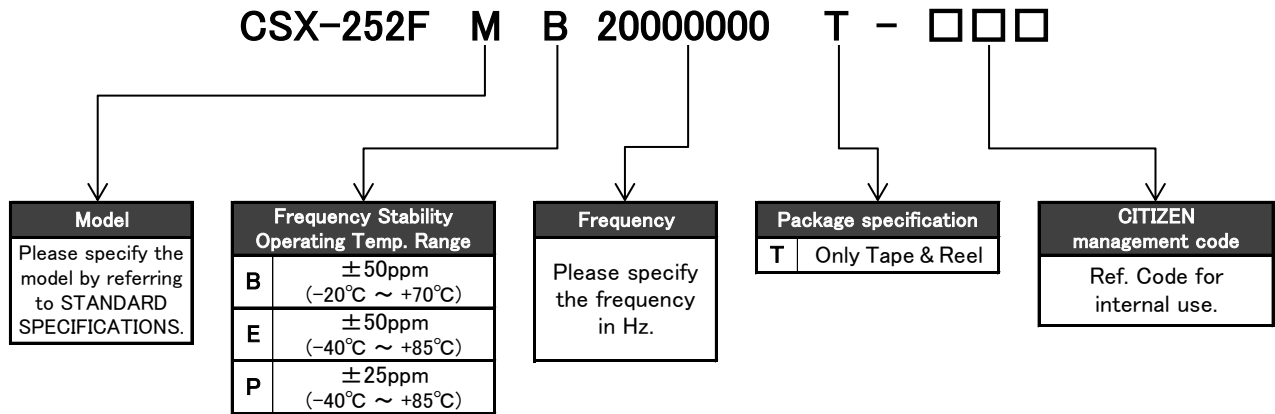
### SOLDER PAD LAYOUT [mm]



### STANDARD SPECIFICATIONS

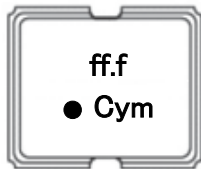
Item	Model	OE				
		STAND-BY	CSX-252FM(*)	CSX-252FH(*)	CSX-252FJ(*)	CSX-252FA(*)
Frequency Range			40.000MHz ~ 60.000MHz			
Supply Voltage			1.8V±5%	2.5V±5%	3.3V±0.3V	1.8V ~ 3.3V
Frequency Stability			B: ±50ppm(-20°C ~ +70°C), E: ±50ppm(-40°C ~ +85°C)			
Operating Temperature Range			-20°C ~ +70°C / (-40°C ~ +85°C)			
Storage Temperature Range			-45°C ~ +90°C			
Current consumption			2.5mA Max: ~30MHz	4.5mA Max: ~19MHz	6mA Max: ~19MHz	
			3.5mA Max: ~60MHz	6.5mA Max: ~60MHz	8mA Max: ~60MHz	
Duty	TTL level (1.4V)		-			
	CMOS level (1/2 Vdd)		45% ~ 55%			
Output Voltage	V <sub>OH</sub>		0.9Vdd Min.			
	V <sub>OL</sub>		0.1Vdd Max.			
Output Load	TTL		-			
	CMOS		15pF Max.			
Rise and Fall Time CMOS (20%Vdd ⇔ 80%Vdd)			10nsec Max.			
Start-up time			10msec Max. (Time at minimum operating voltage to be 0sec.)			
Input Voltage (ST)	V <sub>IH</sub>		0.7Vdd Min.			
	V <sub>IL</sub>		0.2Vdd Max.			
Disable current			-			
Stand-by current			50 μA Max.			

## ■ PART NUMBERING SYSTEM



\*Please contact us for specifications available.

## ■ Part Marking [standard]



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

C : Manufacture's ID Code

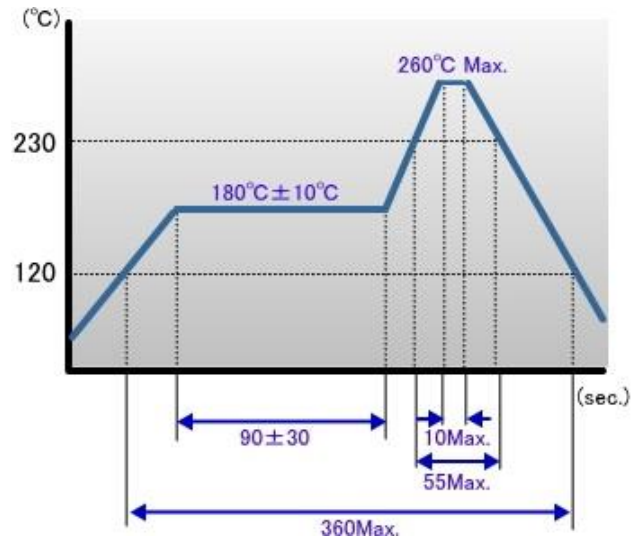
y : The last digit of production year

m : Production month (See Table.1)

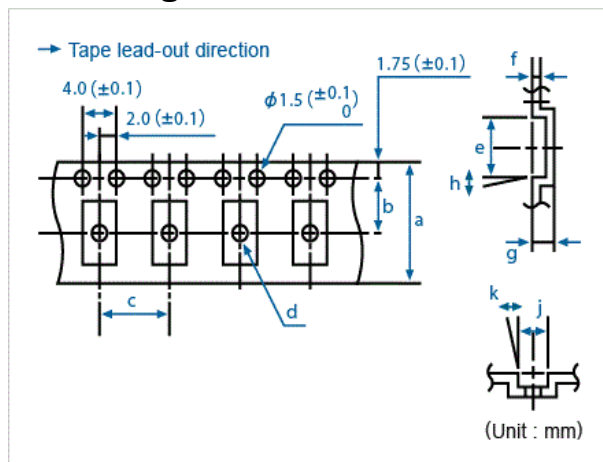
Table.1

Month	Jan	Feb	...	Aug	Sep	...	Dec
Code	A	B	...	H	J	...	M

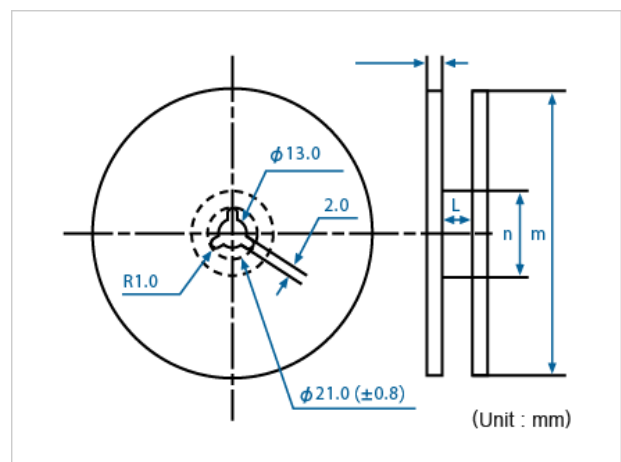
## ■ Reflow profile



## ■ 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	2.7	0.25	1.15	5°	2.25	5°	9.0	180	60

Product specifications are subject to change without notice.

Rev.3