

# Crystal Units Surface Mount Type: Tuning Fork ST3215SB



3.2×1.5mm for Small Size Mobile Equipment



**Pb Free**

**RoHS Compliant**

### Features

- Small, Low Profile (3.2×1.5×0.75mm)
- Ceramic Package
- Pb Free
- Reflow Compatible

### Applications

- Small size mobile equipment

### How to Order

ST3215SB 32768 □□ □□ □□ □□

① ② ③ ④ ⑤ ⑥ ⑦

① Series

② Frequency

32.768kHz

③ Load Capacitance

④ Frequency Stability

**H5** 12.5 pF

**H** ±20×10<sup>-6</sup>

⑤ Operating Temp. Range

⑥ Frequency Temp. Stability

**P** -40 to +85°C

**W** ±200×10<sup>-6</sup>

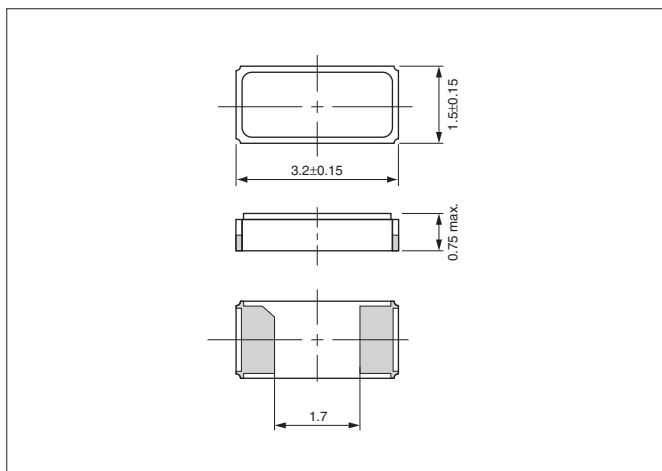
⑦ Individual Specification... Std.Spec. as "ZZ"

### Specifications

Item	Symbol	Specification	Units	Remarks
Nominal Frequency	f <sub>nom</sub>	32.768	kHz	
Frequency Tolerance	f <sub>tol</sub>	±20	×10 <sup>-6</sup>	@25°C
Turnover Temperature	T <sub>i</sub>	+25±5	°C	
Parabolic Coefficient	B	-0.04 max.	×10 <sup>-6</sup>	
Motional Resistance	R1	70 max.	k-ohm	
Motional Capacitance	C1	3.3 typ.	fF	
Shunt Capacitance	C0	1.5 typ.	pF	
Load Capacitance	CL	12.5	pF	Please consult us
Drive Level	DL	0.1	μW	
Operating Temp. Range	T <sub>use</sub>	-40 to +85	°C	
Storage Temp. Range	T <sub>stg</sub>	-55 to +125	°C	
Frequency Aging	f <sub>age</sub>	±3	×10 <sup>-6</sup>	

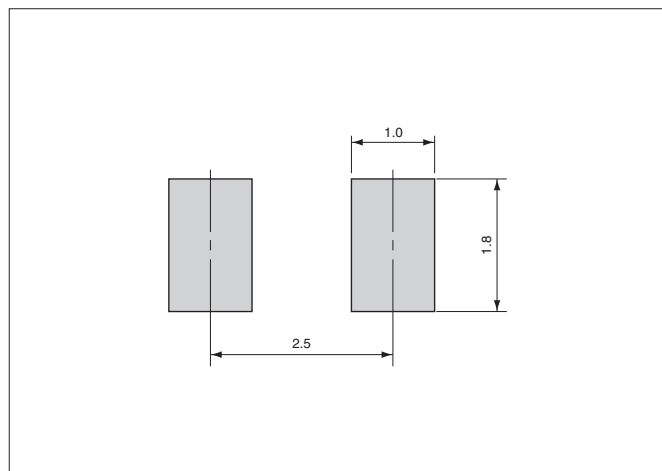
### Dimensions

(Unit: mm)



### Recommended Land Pattern

(Unit: mm)





Pb Free

RoHS Compliant

### Features

- Small, Low Profile (4.1×1.5×0.75mm)
- Ceramic Package
- Pb Free
- Reflow Compatible

### Applications

- Small size mobile equipment

### How to Order

ST4115SB 32768 □□ □ □ □ □ □  
① ② ③ ④ ⑤ ⑥ ⑦

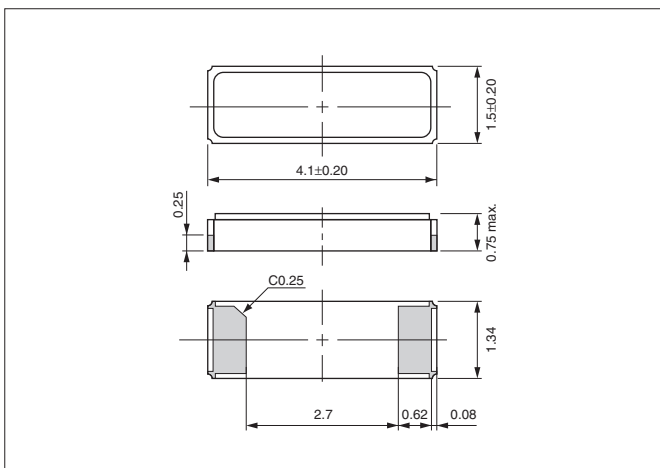
- ① Series
- ② Frequency 32.768kHz
- ③ Load Capacitance **H5** 12.5 pF
- ④ Frequency Stability **H** ±20×10<sup>-6</sup>
- ⑤ Operating Temp. Range **P** -40 to +85°C
- ⑥ Frequency Temp. Stability **W** ±200×10<sup>-6</sup>
- ⑦ Individual Specification... Std.Spec. as "ZZ"

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Frequency Tolerance	f <sub>tol</sub>	±20	×10 <sup>-6</sup>	@25°C
Turnover Temperature	T <sub>i</sub>	+25±5	°C	
Parabolic Coefficient	B	-0.04 max.	×10 <sup>-6</sup>	
Motional Resistance	R <sub>1</sub>	65 max.	k-ohm	
Motional Capacitance	C <sub>1</sub>	2.3 typ.	fF	
Shunt Capacitance	C <sub>0</sub>	1.5 typ.	pF	
Load Capacitance	CL	12.5	pF	Please consult us
Drive Level	DL	0.1	μW	
Operating Temp. Range	T <sub>use</sub>	-40 to +85	°C	
Storage Temp. Range	T <sub>stg</sub>	-55 to +125	°C	
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(Unit: mm)



### Recommended Land Pattern

(Unit: mm)

