



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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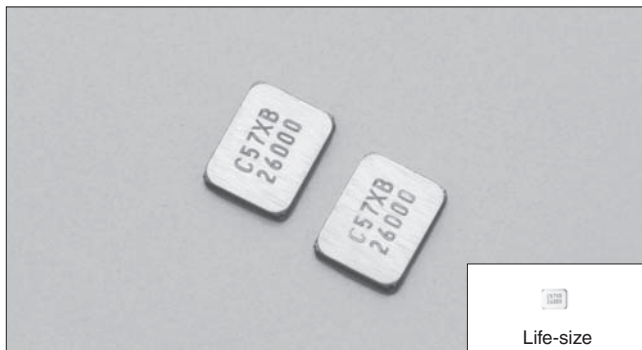
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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

## CS325

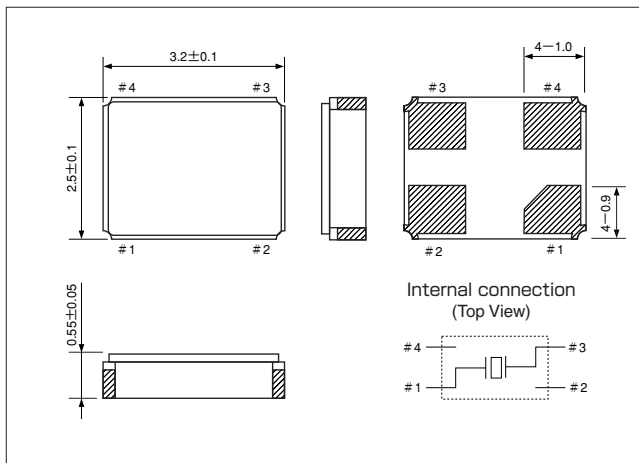
3000pcs/reel



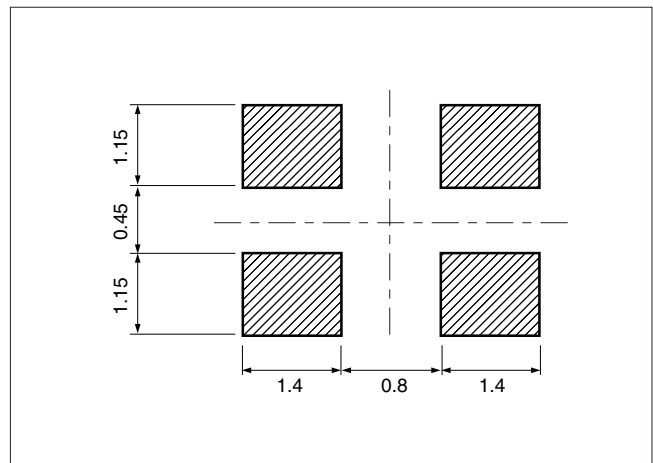
### FEATURES

- High-density SMD type.
- Reliable ceramic package and excellent environmental characteristics.
- Suitable for various applications such as communication devices, AV devices and other equipment.
- Complete Pb free product.

### DIMENSION [mm]



### SOLDER PAD LAYOUT [mm]



### STANDARD SPECIFICATIONS

| Item   | Model          | CS325                         | Conditions                                     |
|--|----------------|-------------------------------|--|
| Nominal Frequency                                    | $f_0$          | 12.0MHz~54.0MHz (Fundamental) | Need to contact us for the available frequency |
| 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                                     | $C_L$          | 16.0pF, 18.0pF                | Need to specify your requirement               |
| Shunt capacitance                                    | $C_0$          | 5.0pF Max.                    |  |
| Level of drive                                       | $D_L$          | 10 $\mu$ W (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 ( $R_1$ )

| Frequency Range | 12.0MHz $\leq f_0 < 16.0$ MHz | 16.0MHz $\leq f_0 < 20.0$ MHz | 20.0MHz $\leq f_0 < 30.0$ MHz | 30.0MHz $\leq f_0 < 54.0$ MHz |
|-----------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| ESR             | 150 $\Omega$ Max.             | 120 $\Omega$ Max.             | 80 $\Omega$ Max.              | 50 $\Omega$ Max.              |