

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

RoHS compliant / Pb free

## CS325S

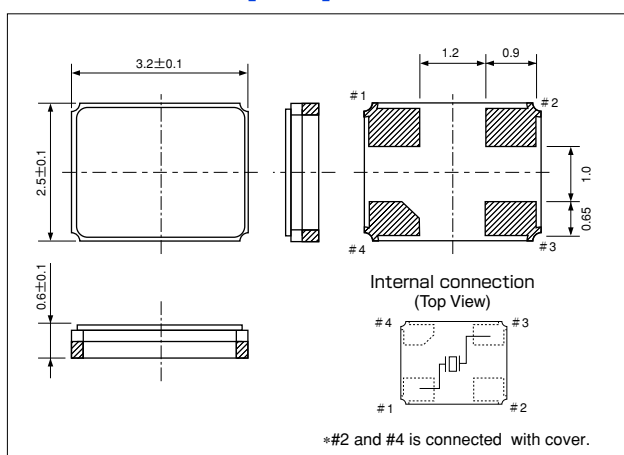
3000pcs/reel



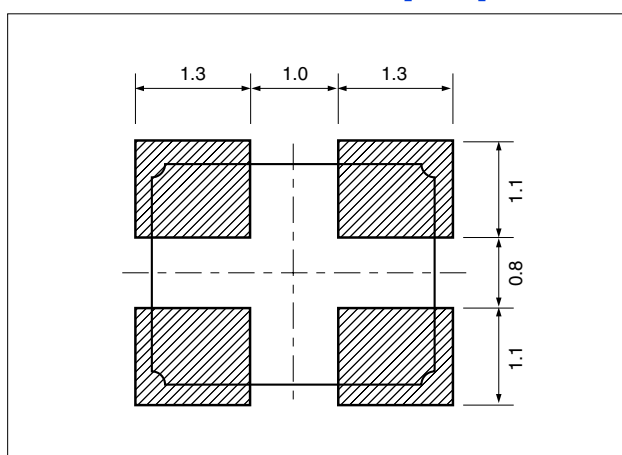
### FEATURES

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

### DIMENSION [mm]



### SOLDER PAD LAYOUT [mm]



### STANDARD SPECIFICATIONS

| Item                                                 | Model          | CS325S                                    | Conditions                                     |
|------------------------------------------------------|----------------|-------------------------------------------|------------------------------------------------|
| Nominal Frequency                                    | $f_0$          | 12.0MHz~54.0MHz (Fundamental)             | Need to contact us for the available frequency |
| Frequency Tolerance                                  | $\Delta f/f_0$ | $\pm 30\text{ppm}$                        | 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~∞                                  | Need to specify your requirement               |
| Shunt capacitance                                    | $C_0$          | 5.0pF Max.                                |                                                |
| Level of drive                                       | $D_L$          | 10 $\mu\text{W}$ (100 $\mu\text{W}$ Max.) |                                                |
| Insulation Resistance                                | $I_R$          | 500M $\Omega$ Min.                        | DC100V $\pm$ 15V                               |
| Aging (first year)                                   | $\Delta f/f_0$ | $\pm 5\text{ppm}$ 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.              |