

# CRYSTAL UNITS

## SURFACE MOUNT TYPE CRYSTAL UNITS / NX1255GA (CP12A)

This is small surface mount type crystal unit.

### Features

- Compact and thin (11.8×5.5×2.5 mm).
- Excellent heat resistance and environmental characteristics.
- Taping package is for customer automatic loading operation.
- It is applicable to IR Reflow.



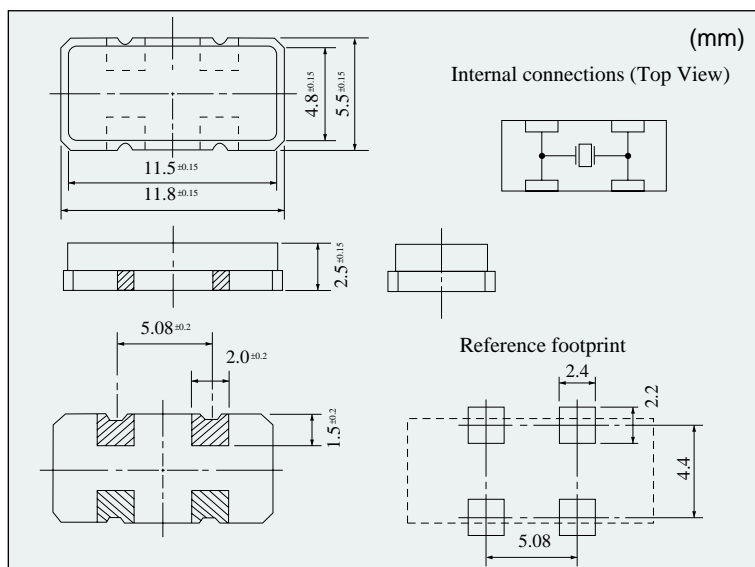
### Specification

| Item                                                | Type | NX1255GA (CP12A)        |                          |                          |
|-----------------------------------------------------|------|-------------------------|--------------------------|--------------------------|
| Frequency Range                                     |      | 3.5 MHz ~ 25 MHz        |                          |                          |
| Overtone                                            |      | Fundamental             |                          |                          |
| Frequency Tolerance (25±3°C)                        |      | ± 50 × 10 <sup>-6</sup> | ± 100 × 10 <sup>-6</sup> | ± 100 × 10 <sup>-6</sup> |
| Temperature Characteristics (in reference to +25°C) |      | ± 50 × 10 <sup>-6</sup> | ± 100 × 10 <sup>-6</sup> | ± 150 × 10 <sup>-6</sup> |
| Operating Temperature Range                         |      | -10 ~ +70°C             |                          | -40 ~ +125°C             |
| Equivalent Series Resistance                        |      | 4 See table 1           |                          |                          |
| Drive Level                                         |      | 100 μW                  |                          |                          |
| Standard Load Capacitance                           |      | 12pF                    |                          |                          |
| Operable Temperature Range                          |      | -40 ~ +125°C            |                          |                          |

### Standard Frequency (MHz)

|          |          |          |          |         |          |           |           |           |           |         |           |          |           |
|----------|----------|----------|----------|---------|----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|
| 3.541    | 4.032    | 4.90625  | 6.124    | 6.912   | 8.192    | 10.000    | 11.160    | 12.000    | 13.574    | 15.905  | 16.900    | 19.6875  | 22.1184   |
| 3.5712   | 4.045    | 4.9152   | 6.144    | 6.930   | 8.2944   | 10.0432   | 11.250    | 12.0072   | 13.824    | 15.968  | 16.9172   | 19.800   | 22.275    |
| 3.579545 | 4.096    | 4.9536   | 6.147072 | 6.965   | 8.3712   | 10.050    | 11.260    | 12.160    | 13.875    | 15.970  | 16.9344   | 19.968   | 22.528    |
| 3.5808   | 4.125    | 5.000    | 6.25     | 7.000   | 8.388    | 10.1088   | 11.286    | 12.288    | 14.000    | 15.9744 | 17.1776   | 20.000   | 22.579    |
| 3.600    | 4.190    | 5.0688   | 6.270    | 7.0656  | 8.388608 | 10.178125 | 11.2896   | 12.352    | 14.21875  | 15.975  | 17.3313   | 20.0125  | 22.5792   |
| 3.640    | 4.192    | 5.120    | 6.290    | 7.1424  | 8.448    | 10.215    | 11.400    | 12.500    | 14.2848   | 15.9859 | 17.445    | 20.250   | 23.000    |
| 3.648    | 4.194304 | 5.333333 | 6.291    | 7.15909 | 8.4672   | 10.240    | 11.4545   | 12.504    | 14.3      | 16.000  | 17.734476 | 20.325   | 23.75     |
| 3.6845   | 4.250    | 5.346    | 6.291456 | 7.200   | 8.664    | 10.245    | 11.454544 | 12.58     | 14.31818  | 16.0096 | 17.9      | 20.480   | 23.950    |
| 3.6858   | 4.2986   | 5.370    | 6.300    | 7.280   | 8.700    | 10.250    | 11.500    | 12.5875   | 14.32118  | 16.104  | 18.000    | 20.5267  | 24.000    |
| 3.6864   | 4.3008   | 5.376    | 6.3488   | 7.3728  | 9.000    | 10.260    | 11.520    | 12.6      | 14.400    | 16.128  | 18.355    | 20.730   | 24.192    |
| 3.700    | 4.332    | 5.390625 | 6.400    | 7.500   | 9.210    | 10.368    | 11.54127  | 12.648    | 14.500    | 16.200  | 18.432    | 20.736   | 24.300    |
| 3.72827  | 4.3728   | 5.439488 | 6.448    | 7.624   | 9.216    | 10.440    | 11.580224 | 12.800    | 14.560    | 16.256  | 18.816    | 20.738   | 24.380952 |
| 3.7343   | 4.380    | 5.500    | 6.4512   | 7.680   | 9.220608 | 10.533    | 11.58042  | 12.9024   | 14.644    | 16.345  | 18.89763  | 20.920   | 24.545452 |
| 3.750    | 4.400    | 5.5296   | 6.4544   | 7.6992  | 9.475    | 10.695    | 11.648    | 12.960    | 14.725    | 16.384  | 19.01875  | 20.945   | 24.576    |
| 3.8016   | 4.42368  | 5.55781  | 6.500    | 7.9488  | 9.49453  | 10.700    | 11.650    | 13.000    | 14.744715 | 16.500  | 19.069928 | 21.000   | 24.580    |
| 3.840    | 4.430    | 5.6448   | 6.510    | 7.950   | 9.51     | 10.73863  | 11.6736   | 13.070    | 14.7456   | 16.588  | 19.08549  | 21.0526  | 24.704    |
| 3.862625 | 4.433619 | 5.72727  | 6.552    | 7.984   | 9.600    | 10.752    | 11.71876  | 13.150    | 14.74685  | 16.590  | 19.170    | 21.075   | 25.000    |
| 3.91193  | 4.500    | 5.760    | 6.5536   | 7.9872  | 9.6852   | 10.78125  | 11.890    | 13.225625 | 14.750    | 16.600  | 19.176    | 21.145   |           |
| 3.93216  | 4.592    | 5.850    | 6.570    | 7.998   | 9.79844  | 10.800    | 11.8951   | 13.23438  | 14.770    | 16.620  | 19.200    | 21.245   |           |
| 3.9672   | 4.608    | 5.85938  | 6.6128   | 8.000   | 9.8304   | 11.000    | 11.9318   | 13.24125  | 15.000    | 16.6399 | 19.3125   | 21.330   |           |
| 3.992    | 4.750    | 5.940    | 6.61719  | 8.0256  | 9.84375  | 11.0537   | 11.94375  | 13.300    | 15.360    | 16.6567 | 19.570    | 21.345   |           |
| 3.996    | 4.75468  | 5.94755  | 6.6667   | 8.054   | 9.8475   | 11.05692  | 11.95804  | 13.407812 | 15.600    | 16.6633 | 19.576    | 21.400   |           |
| 4.000    | 4.767    | 5.948    | 6.76438  | 8.064   | 9.8618   | 11.0592   | 11.9808   | 13.500    | 15.6672   | 16.667  | 19.600    | 21.47727 |           |
| 4.0015   | 4.7727   | 5.9904   | 6.77219  | 8.100   | 9.984    | 11.0647   | 11.98135  | 13.560    | 15.800    | 16.670  | 19.6608   | 21.784   |           |
| 4.021    | 4.800    | 6.000    | 6.8985   | 8.185   | 9.99375  | 11.155    | 11.990    | 13.56875  | 15.900    | 16.700  | 19.670    | 22.000   |           |

### Dimensions



If you need NON-standard spec., please contact us.  
[Type name] In ( ) is previous name.

4 Table 1 Equivalent Series Resistance

| Frequency Range (MHz) | Equivalent Series Resistance (Ω) |                |
|-----------------------|----------------------------------|----------------|
|                       | -10°C ~ +70°C                    | -40°C ~ +125°C |
| 3.5 ~ 4.0             | 150 max                          | 200 max        |
| 4.0 ~ 8.0             | 120                              | 180            |
| 8.0 ~ 12.0            | 80                               | 120            |
| 12.0 ~ 25.0           | 50                               | 80             |