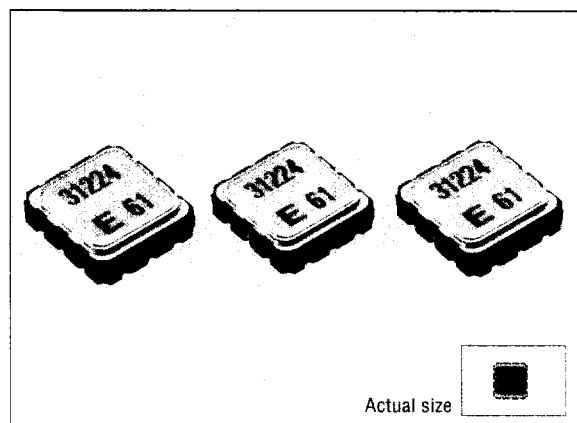


## SAW RESONATOR

## FS-555

- Reflow solderable SMD ceramic package.
- Capable of covering a wide frequency range, from 200 MHz to 500 MHz.
- 1.5mm thickness is equal to SMD-type IC.
- Perfect for small wireless equipment.

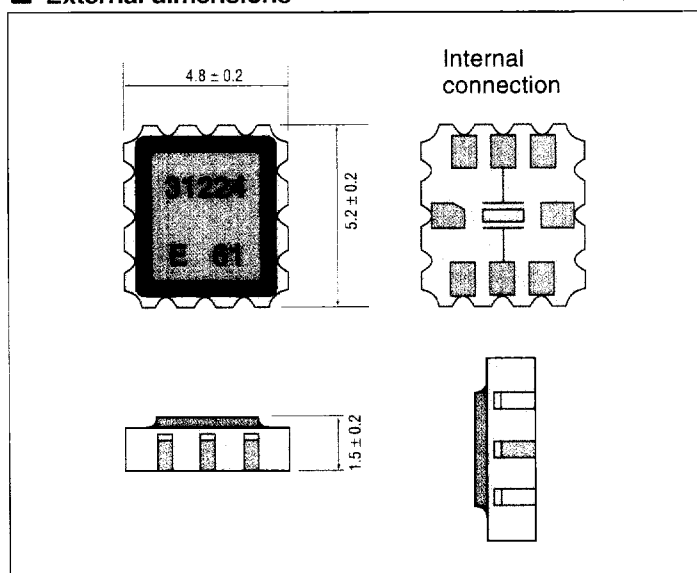


## ■ Specifications (characteristics)

| Item                           | Symbol                | Specifications                                                | Remarks                                                                                                   |
|--------------------------------|-----------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Nominal frequency range        | $f_0$                 | 200 MHz to 500 MHz                                            |                                                                                                           |
| Temperature range              | Storage temperature   | $T_{STG}$                                                     | -55°C to +100°C                                                                                           |
|                                | Operating temperature | $T_{OPR}$                                                     | -40°C to +85°C                                                                                            |
| Maximum drive level            | GL                    | 10mW max.                                                     |                                                                                                           |
| Recommended level              | DL                    | 2mW typ.                                                      |                                                                                                           |
| Frequency tolerance (standard) | $\Delta f/f$          | $\pm 25\text{ppm}$ , $\pm 50\text{ppm}$ , $\pm 100\text{ppm}$ | $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$                                                              |
| Peak temperature               | $\theta T$            | $25^\circ\text{C} \pm 15^\circ\text{C}$                       |                                                                                                           |
| Temperature coefficient        | $\alpha$              | $-3.4 \pm 0.8 \times 10^{-6}/^\circ\text{C}^2$                |                                                                                                           |
| Harmonic ratio                 | $R_s/R_1$             | 2 min.                                                        |                                                                                                           |
| Series resistance              | $R_1$                 | 40 $\Omega$ max.                                              | 200 MHz to 249.9 MHz, $T_a = 25^\circ\text{C}$                                                            |
|                                |                       | 25 $\Omega$ max.                                              | 250 MHz to 500 MHz, $T_a = 25^\circ\text{C}$                                                              |
| Motional capacitance           | $C_1$                 | 2.6 fF typ.                                                   | ( $f_0 = 312.24\text{ MHz}$ )                                                                             |
| Shunt capacitance              | $C_0$                 | 4.3 pF typ.                                                   | ( $f_0 = 312.24\text{ MHz}$ )                                                                             |
| Insulation resistance          | IR                    | 500 M $\Omega$ min.                                           |                                                                                                           |
| Aging                          | $f_a$                 | $\pm 10\text{ppm/year max.}$                                  | $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$                                                              |
| Shock resistance               | S.R.                  | $\pm 10\text{ppm max.}$                                       | Nine drops on a concrete from 150 cm or excitation test with 3000G x 0.3ms x 1/2 sine wave x 3 directions |

## ■ External dimensions

(Unit: mm)



## ■ Recommended soldering pattern

(Unit: mm)

