# Dielectric Resonators (RESOMICS®)

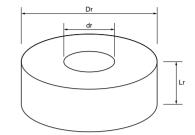


## **Dielectric Resonator V Series (DRT Type)**

#### ■ Features

- 1. High Q of 12,000 at 10GHz
- 2. High dielectric constant: Er=34
- Resonant frequency temperature coefficient can be chosen from 0 to 8ppm/(degree C). Tolerance of frequency temperature coefficient can be chosen from +-0.5, +-1 and +-2ppm/(degree C).
- 4. Resonant frequency can be chosen from 2.9 to 12.5GHz.





| Part Number       | Outer Dia.<br>(mm) | Inner Dia.<br>(mm) | Thickness<br>(mm) | Frequency Range |
|-------------------|--------------------|--------------------|-------------------|-----------------|
| DRT0510224V□□□00T | 5.06 ±0.05 mm      | 2.0 ±0.1 mm        | 2.24 ±0.05 mm     | 11.41~12.52 GHz |
| DRT0550244V□□□00T | 5.50 ±0.05 mm      | 2.0 ±0.1 mm        | 2.44 ±0.05 mm     | 10.42~11.42 GHz |
| DRT0600265V□□□00T | 5.98 ±0.05 mm      | 2.0 ±0.1 mm        | 2.65 ±0.05 mm     | 9.54~10.42 GHz  |
| DRT0650288V□□□00T | 6.50 ±0.05 mm      | 2.0 ±0.1 mm        | 2.88 ±0.05 mm     | 8.74~9.54 GHz   |
| DRT0710314V□□□00T | 7.07 ±0.05 mm      | 2.0 ±0.1 mm        | 3.14 ±0.05 mm     | 8.00~8.74 GHz   |
| DRT0770341V□□□00T | 7.69 ±0.05 mm      | 2.0 ±0.1 mm        | 3.41 ±0.05 mm     | 7.34~8.00 GHz   |
| DRT0840371V□□□00T | 8.36 ±0.05 mm      | 3.0 ±0.1 mm        | 3.71 ±0.05 mm     | 6.85~7.34 GHz   |
| DRT0910403V□□□00T | 9.09 ±0.05 mm      | 3.0 ±0.1 mm        | 4.03 ±0.05 mm     | 6.27~6.85 GHz   |
| DRT0990438V□□□00T | 9.88 ±0.05 mm      | 3.0 ±0.1 mm        | 4.38 ±0.05 mm     | 5.74~6.27 GHz   |
| DRT1070477V□□□00T | 10.75 ±0.05 mm     | 4.0 ±0.1 mm        | 4.77 ±0.05 mm     | 5.34~5.74 GHz   |
| DRT1170518V□□□00T | 11.68 ±0.05 mm     | 4.0 ±0.1 mm        | 5.18 ±0.05 mm     | 4.89~5.34 GHz   |
| DRT1270563V□□□00T | 12.70 ±0.05 mm     | 4.0 ±0.1 mm        | 5.63 ±0.05 mm     | 4.48~4.89 GHz   |
| DRT1380613V□□□00T | 13.81 ±0.05 mm     | 4.0 ±0.1 mm        | 6.13 ±0.05 mm     | 4.10~4.48 GHz   |
| DRT1500666V□□□00T | 15.02 ±0.05 mm     | 4.0 ±0.1 mm        | 6.66 ±0.05 mm     | 3.76~4.10 GHz   |
| DRT1630724V□□□00T | 16.33 ±0.05 mm     | 4.0 ±0.1 mm        | 7.24 ±0.05 mm     | 3.45~3.76 GHz   |
| DRT1780788V□□□00T | 17.76 ±0.05 mm     | 4.0 ±0.1 mm        | 7.88 ±0.05 mm     | 3.17~3.45 GHz   |
| DRT1930856V□□□00T | 19.31 ±0.05 mm     | 4.0 ±0.1 mm        | 8.56 ±0.05 mm     | 2.91~3.17 GHz   |

Codes for temperature coefficient of resonant frequency and the tolerance should be put into the three blank boxes of the above Part Numbers. Please see "Part Numbering" (ex.) 2.0±1.0ppm/°C : 20A.

### ■ Freq. Temp. Coefficient, Dielectric Constant and Q

#### V series

| v series            |   |                                |                 |  |  |
|---------------------|---|--------------------------------|-----------------|--|--|
| Characteristic Code | Frequency Temperature<br>Coefficient<br>(τf) (ppm/°C) | Dielectric<br>Constant<br>(ɛr) | Q<br>(at 10GHz) |  |  |
| 00                  | 0   | 33.5±0.5                       |                 |  |  |
| 20                  | 2   | 33.9±0.5                       |                 |  |  |
| 40                  | 4   | 34.3±0.5                       | 10,000 min.     |  |  |
| 60                  | 6   | 34.7±0.5                       |                 |  |  |
| 80                  | 8   | 35.1±0.5                       |                 |  |  |