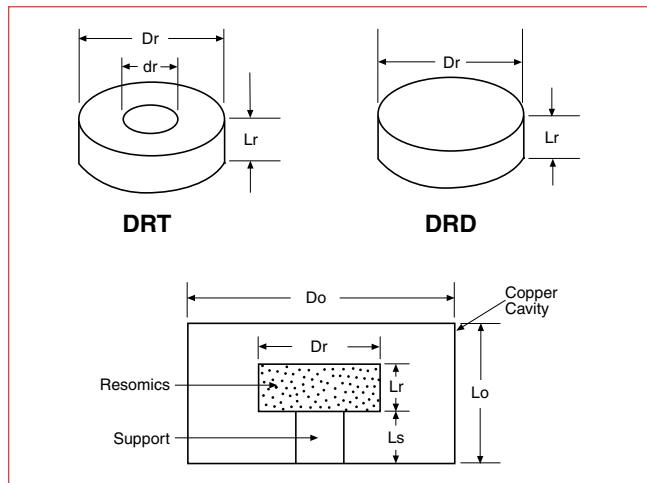


### CONFIGURATION



### GENERAL CHARACTERISTICS

- High unloaded Q — 20,000 min. @ 10GHz.
- High dielectric constant —  $\epsilon_r \approx 24.5$ .
- The resonant frequency temperature coefficient can be chosen from 0 to 6ppm/°C. Tolerance of frequency temperature coefficient can be chosen  $\pm 1, \pm 2$ ppm/°C.
- Dielectric resonators are chosen from the frequency range of 8.4 to 25GHz in disk type (DRD), and from the frequency range of 8.4 to 19.5GHz in cylindrical type (DRT).
- E-Series is also fit for application above 25GHz. Please consult us.

### DIMENSIONS & FREQUENCY RANGE DRD TYPE

Part Number	Dr ± 0.05 (mm)	Lr ± 0.05 (mm)	Frequency Range (GHz)
DRD028E□103	2.82	1.25	23.17 to 25.15
DRD031E□014	3.06	1.36	21.27 to 23.17
DRD033E□015	3.33	1.48	19.48 to 21.27
DRD036E□016	3.62	1.61	17.93 to 19.48
DRD039E□018	3.94	1.76	16.47 to 17.93
DRD043E□019	4.28	1.91	15.16 to 16.47
DRD046E□021	4.65	2.06	13.95 to 15.16
DRD051E□022	5.06	2.24	12.82 to 13.95
DRD055E□024	5.50	2.44	11.80 to 12.82
DRD060E□027	5.98	2.65	10.85 to 11.80
DRD065E□029	6.50	2.88	9.98 to 10.85
DRD071E□031	7.07	3.14	9.18 to 9.98
DRD077E□034	7.69	3.41	8.44 to 9.18

### DRT TYPE

Part Number	Dr ± 0.05 (mm)	dr ± 0.1 (mm)	Lr ± 0.05 (mm)	Frequency Range (GHz)
DRT036E013□016	3.62	1.3	1.61	17.93 to 19.48
DRT039E013□018	3.94	1.3	1.76	16.47 to 17.93
DRT043E013□019	4.28	1.3	1.91	15.16 to 16.47
DRT046E020□021	4.65	2.0	2.06	13.95 to 15.16
DRT051E020□022	5.06	2.0	2.24	12.82 to 13.95
DRT055E020□024	5.50	2.0	2.44	11.80 to 12.82
DRT060E020□027	5.98	2.0	2.65	10.85 to 11.80
DRT065E020□029	6.50	2.0	2.88	9.98 to 10.85
DRT071E020□031	7.07	2.0	3.14	9.18 to 9.98
DRT077E020□034	7.69	2.0	3.41	8.44 to 9.18

TABLE 1: Q &  $T_f$

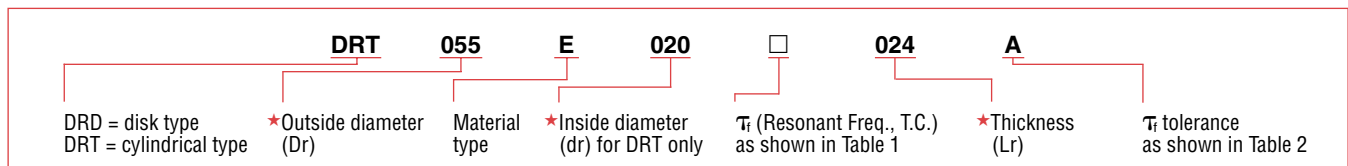
Characteristic Code	Frequency Temperature Coefficient ( $T_f$ ) (ppm/°C)	Dielectric Constant ( $\epsilon_r$ )	Unloaded Q (at 10GHz)
C	0	24.2 ± 0.4	20,000 min.
D	2	24.4 ± 0.4	
E	4	24.7 ± 0.4	
F	6	24.9 ± 0.4	

Q can be approximated by:  $Q \geq \frac{200,000}{f_0}$   
 $f_0 = [\text{GHz}]$

TABLE 2:  $T_f$  TOLERANCE

Special Code	Tolerance of Frequency Temperature Coefficient (ppm/°C)
No Code	±2
A	±1

### PART NUMBERING



\*Note: For actual dimension in mm, divide number by 10.