

Dielectric Resonators (RESOMICS®)



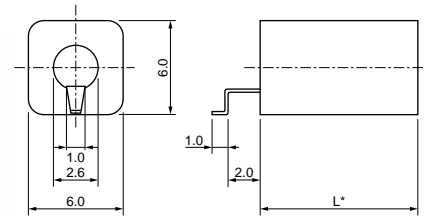
Dielectric Resonator K Series (DRR Copper Plated Type)

■ Features

1. High dielectric constant : Er=92
2. Lower price than silver plated type
3. Excellent solderability by copper electrode
4. These resonators cover wide range of resonant frequencies (by 10MHz step).



DRR060 Type

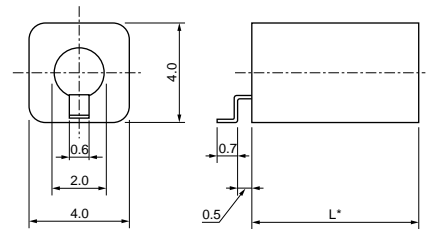


* Dimension L can be calculated by the following, using dielectric constant and resonant frequency.
 $L \approx 3 \times 10^{11} / (n\sqrt{\epsilon_r} \cdot f_0)$ (f₀ : Hz)
 λ/4 TEM mode : n=4 λ/2 TEM mode : n=2

(in mm)



DRR040 Type

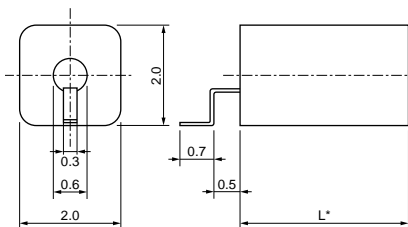


* Dimension L can be calculated by the following, using dielectric constant and resonant frequency.
 $L \approx 3 \times 10^{11} / (n\sqrt{\epsilon_r} \cdot f_0)$ (f₀ : Hz)
 λ/4 TEM mode : n=4 λ/2 TEM mode : n=2

(in mm)



DRR020 Type

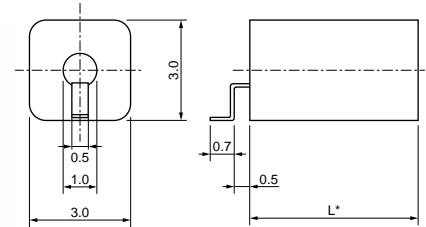


* Dimension L can be calculated by the following, using dielectric constant and resonant frequency.
 $L \approx 3 \times 10^{11} / (n\sqrt{\epsilon_r} \cdot f_0)$ (f₀ : Hz)
 λ/4 TEM mode : n=4 λ/2 TEM mode : n=2

(in mm)



DRR030 Type



* Dimension L can be calculated by the following, using dielectric constant and resonant frequency.
 $L \approx 3 \times 10^{11} / (n\sqrt{\epsilon_r} \cdot f_0)$ (f₀ : Hz)
 λ/4 TEM mode : n=4 λ/2 TEM mode : n=2

(in mm)

Part Number	f ₀ (MHz)	Unloaded Q (min)	Wavelength	Z _a (ohm)
DRR060□□□□KTC00T	440 to 490	330	Lambda/4	5.7 (Nominal Value)
DRR060□□□□KTC00T	500 to 790	350	Lambda/4	5.7 (Nominal Value)
DRR060□□□□KTC00T	800 to 1300	400	Lambda/4	5.7 (Nominal Value)
DRR060□□□□KPC00T	1000 to 1690	470	Lambda/2	5.7 (Nominal Value)
DRR060□□□□KPC00T	1700 to 2200	510	Lambda/2	5.7 (Nominal Value)
DRR040□□□□KTC00R	500 to 540	200	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KTC00R	550 to 640	220	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KTC00R	650 to 790	240	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KTC00R	800 to 890	260	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KTC00R	900 to 1490	270	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KTC00R	1500 to 1800	290	Lambda/4	4.8 (Nominal Value)
DRR040□□□□KPC00R	1000 to 1390	300	Lambda/2	4.8 (Nominal Value)

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Part Number	f0 (MHz)	Unloaded Q (min)	Wavelength	Za (ohm)
DRR040□□□□KPC00R	1400 to 1890	340	Lambda/2	4.8 (Nominal Value)
DRR040□□□□KPC00R	1900 to 3000	370	Lambda/2	4.8 (Nominal Value)
DRR030□□□□KTC00R	900 to 1490	230	Lambda/4	7.4 (Nominal Value)
DRR030□□□□KTC00R	1500 to 1600	250	Lambda/4	7.4 (Nominal Value)
DRR020□□□□KTC00R	900 to 1590	150	Lambda/4	8.0 (Nominal Value)
DRR020□□□□KTC00R	1600 to 2600	190	Lambda/4	8.0 (Nominal Value)

Dielectric Constant : 92±1

Temperature coefficient of resonant frequency : 3±2ppm/°C

Tolerance of resonant frequency : ±0.7%max. (Please contact our sales representatives for details.)

Unloaded Q is value at lower limit frequency range.

Five blank boxes of the above Part Numbers are filled with Resonant Frequency codes. Please see Part Numbering for details.

■ Minimum Quantity of Taping

DRR020 type: 2500pcs./phi 330mm reel

DRR030 type: 2000pcs./phi 330mm reel

DRR040 type: 1500pcs./phi 330mm reel