



# Dielectric

## Coaxial Resonators - TEM Mode Dielectric DR Series / 同轴谐振器

Dielectric DR Series are widely used in voltage controlled oscillators and filters for cellular phone, cordless phone and so on. Features with high dielectric constant and high Q, excellent Solderability. Token DR series designs are available from 800 MHz to 4800 MHz by 10 MHz standard and custom packages are available. Please consult our sales representatives or engineers as regards the products for other frequency

### ► Features

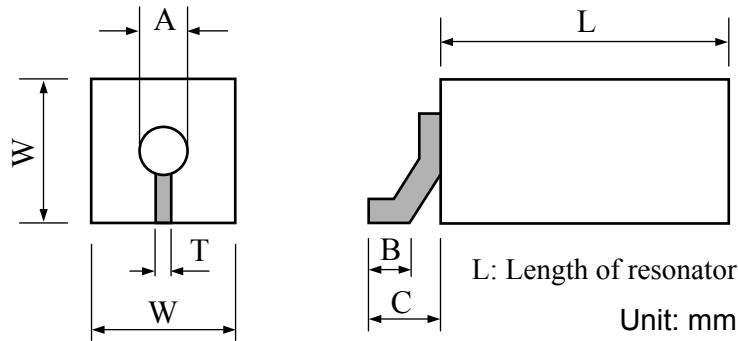
- High dielectric constant
- Low temperature coefficient
- High quality factor
- Wide range of resonant frequency

### ► Applications

- Oscillators (DRO/VCO)
- 900MHz, 1.8GHz, 2.4GHz, 5.8GHz wireless phone
- Wireless headphone, wireless security system
- Filter and duplexer
- CDMA/PCS/WLL/IMT2000



### ► Coaxial DR Resonators Dimensions (Unit: mm)



### ► Coaxial DR Resonators Specifications

Part Number	W(O/D)	A(I/D)	B	C	T
D120	12.0±0.2	① Φ4.0±0.2	without tab	3.2	1.0
		② Φ3.55±0.2	1.5		
D100	10.0±0.2	① Φ3.3±0.2	1.3	3.0	1.0
D080	8.0±0.2	① Φ2.7±0.2	1.3	2.6	0.7
D060	6.0±0.2	① Φ2.5±0.2	without tab	2.4	0.7
		② Φ2.2±0.2	without tab		
		③ Φ2.0±0.2	1.2		
D050	5.0±0.2	① Φ1.8±0.2	1.0	2.2	0.6
		② Φ1.5±0.2	1.0		
D040	4.0±0.1	① Φ1.8±0.1	0.8	1.8	0.6
		② Φ1.5±0.1	without tab		
		③ Φ1.2±0.1	without tab		
D030	3.0±0.1	① Φ1.0±0.1	0.7	1.5	0.5
D020	2.1±0.1	① Φ0.6±0.1	0.5	1.2	0.5



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## ► Available Range of TEM Mode DR Series Resonators

Material	Dielectric Constant	Tf <sup>[1]</sup>	Type	Characteristic Impedance (Ω)	Wave Length	Frequency Range (MHz)	Q <sup>[2]</sup> (min)
A Series	21±1	0±10	D120	⓪15 Ⓣ17	λ/4	800~1300	800
					λ/2	1600~2700	1000
			D100	16	λ/4	800~1300	700
					λ/2	1600~3200	800
			D080	15	λ/4	1000~3200	650
					λ/2	2000~3000	700
			D060	⓪12 Ⓣ14 Ⓣ15	λ/4	1000~2700	550
					λ/2	2000~3000	600
			D050	⓪14 Ⓣ17	λ/4	1300~3000	450
					λ/2	2500~4000	500
			D040	⓪11 Ⓣ14 Ⓣ17	λ/4	1300~4000	380
					λ/2	2500~4000	400
			D030	15	λ/4	1900~4000	320
					D020	17	λ/4
B Series	36±1	0±10	D120	⓪12 Ⓣ13			λ/4
					λ/2	1200~2400	900
			D100	12	λ/4	600~1200	600
					λ/2	1200~2400	800
			D080	12	λ/4	800~1500	500
					λ/2	1600~3000	700
			D060	⓪10 Ⓣ11 Ⓣ12	λ/4	800~1800	450
					λ/2	1600~3500	550
			D050	⓪11 Ⓣ13	λ/4	800~1800	380
					λ/2	1600~3500	450
			D040	⓪9 Ⓣ11 Ⓣ13	λ/4	1000~2700	320
					λ/2	2000~4800	400
			D030	12	λ/4	1300~3000	220
					D020	13	λ/4
C Series	90±2	0±10	D120	⓪7 Ⓣ8			λ/4
					λ/2	800~1500	700
			D100	7	λ/4	600~800	550
					λ/2	1200~2400	650
			D080	7	λ/4	440~1000	450
					λ/2	1000~1500	550
			D060	⓪6 Ⓣ7 Ⓣ7	λ/4	440~1300	400
					λ/2	1000~2200	470
			D050	⓪7 Ⓣ8	λ/4	500~1800	380
					λ/2	1000~3000	450
			D040	⓪6 Ⓣ7 Ⓣ8	λ/4	900~1600	200
					λ/2	2000~4800	300
			D030	7	λ/4	900~1600	250
					D020	8	λ/4

[1]Frequency stability of temperature

[2]Q value depends on lower limit of frequency range





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## ► How to Order

DR	30	A	1	W4	2533	T
①	②	③	④	⑤	⑥	⑦

① Product Type :Dielectric Resonators

② Dimension

③ Material

④ Impedance

Code	Impedance
1	①
2	②
3	③

⑤ Wave Length

Code	Wave Lenth
W2	$\lambda/2$
W4	$\lambda/4$

⑥ Center Frequency (MHz)

⑦ Configuration

Code	Configuration
T	tab
N	without tab