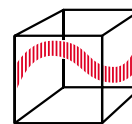


Coaxial TEM Resonators



INTEGRATED MICROWAVE®

Coaxial resonators made with modern, high performance ceramic dielectric materials are very useful as compact frequency standards, filter elements, and distributed inductive or capacitive circuit elements. The high Q obtained in the UHF and microwave frequency range makes these resonators ideal for many applications. When cost, size, and stability are important, these resonators are the best choice.

Coaxial resonators can be supplied as quarter wave resonators with one end fully metallized (i.e., shorted) and the other end open, or as half wave resonators with both ends open. For surface mounting, tabs can be provided for soldering directly to the circuit board. Integrated Microwave offers a choice of seven resonator sizes and four material types to meet virtually any resonator requirement in the 300 MHz to 10 GHz range. These resonators are pretuned to your specified frequency with a choice of tolerances.

Integrated Microwave resonators are made in our facilities in San Diego, California. In-house control of the pressing and firing of the green resonators ensures the optimum fired densities for the best electrical performance. Integrated Microwave's proprietary silver metallization system produces the highest possible Q, exceptional solderability, and strongest metallization adhesion in the industry. Quarter and half wave resonators are precisely tuned to the specified frequency using the coupled transmission method and a network analyzer. Resonators are 100% screened for frequency to ensure that the customer's specifications are met.

Quality by design • Delivered on time



Features

- Rugged thermally stable ceramics
- Seven resonator sizes to choose from: 3, 4, 5, 6, 8, 10, and 12mm
- Four dielectric constants: 8, 20, 36, and 98
- Thick film silver coating for excellent Q and solderability
- Superior silver adhesion – pull strengths greater than 20 pounds
- Tolerances of 0.25% are available
- SMT tabs available for each size resonator

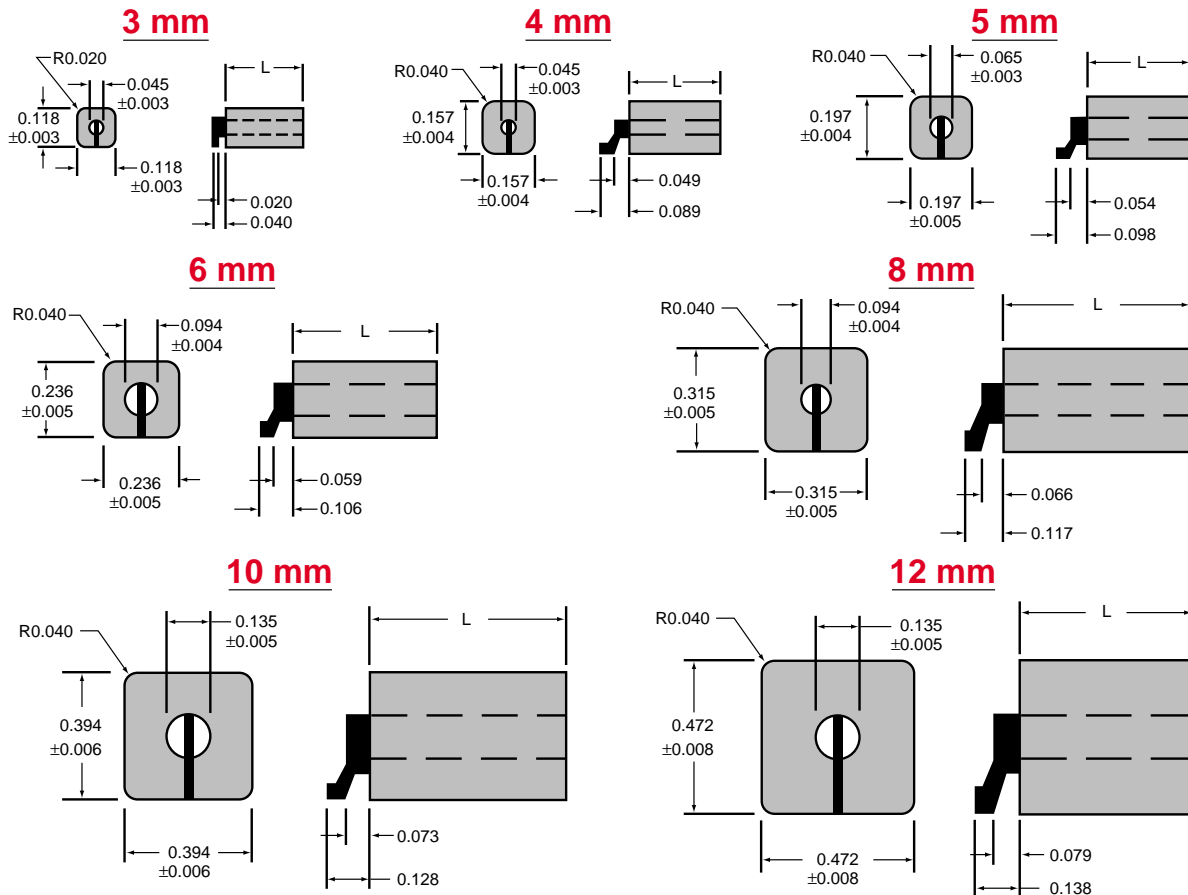
Applications

- Dielectric Resonating Oscillators (DRO)
- Voltage Controlled Oscillators (VCO)
- Pagers
- Global Positioning Systems (GPS)
- Cellular and wireless communications
- Bandpass /bandstop filters
- Narrowband /delay filters
- EMI filtering



Coaxial Resonators

Surface Mount Dimensions and Configurations:

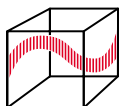


• Units in inches • Standard tab thickness 0.020 inches. Custom tab configurations available – contact factory

Part Numbering System – Example: DR03F36Q1550AYB

DR	XX	F	XX	X	XXXX	X	X	X
Dielectric Coaxial Resonator	Dielectric Profile	Material Source	Dielectric Constant	Resonator Type	Frequency Units in MHz	Frequency Tolerance	TAB Y = Yes N = No	Packaging B = Bulk T = Tape S = Special
	03 mm 04 mm 05 mm 06 mm 08 mm 10 mm 12 mm	F	K8 = 08 K20 = 20 K36 = 36 K98 = 98	Q = 1/4 Wave H = 1/2 Wave		A = ± 0.25% B = ± 0.50% C = ± 0.75% D = ± 1.00% E = Special		

Available Dielectrics	Material	Dielectric Constant	Temperature Coefficient
	08	8 – 10	< ± 15 ppm/°C
	20	20 – 22	< ± 5 ppm/°C
	36	37 – 38	< ± 5 ppm/°C
	98	98 – 100	< ± 15 ppm/°C



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