

PRODUKT-INFO

CSA-310 • CSA-309 HIGH FREQUENCY CRYSTAL

FEATURES

1. The units are high-performance, miniature crystal units manufactured with Citizen's ultrahigh-precision processing technology.
2. High stability has been gained through vacuum sealing.
3. Outstanding vibration resistance, shock resistance and environmental characteristics.
4. Cylinder type metal package / holder.

APPLICATION

Can be used for a wide range of applications including use in AV equipment, OA equipment, communication equipment and measuring instruments.

CSA-310



CSA-309



Actual Size

CSA-310



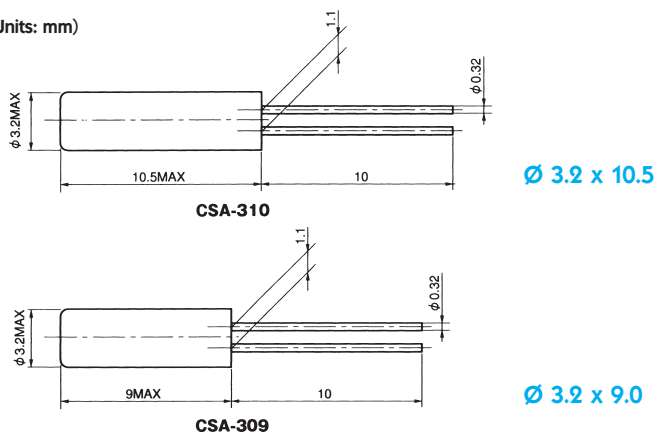
CSA-309



ELECTRICAL SPECIFICATIONS

Model		CSA-310	CSA-309
Nominal Frequency	f_0	3.5 MHz ~ 4.0 MHz	4.0 MHz ~ 70.0 MHz
Frequency Tolerance (at +25°C)	$\Delta f/f_0$	± 20 ppm / ± 30 ppm / ± 50 ppm	
Frequency Stability	$\Delta f/f_0$	± 30 ppm / ± 50 ppm	
Operating Temperature Range	T_{ORP}	-10°C to $+60^\circ\text{C}$, -40°C to $+85^\circ\text{C}$ option	
Storage Temperature Range	T_{STG}	-40°C to $+85^\circ\text{C}$	
Equivalent Series Resistance	R_1	30 Ω ~ 200 Ω	
Load Capacitance	C_L	16 pF typical (Customer Spec.)	
Shunt Capacitance	C_0	5.0 pF max.	
Drive Level	DL	100 μW (500 μW max.)	
Insulation Resistance	IR	500 M Ω min. / DC 100 V \pm 15 V	
Aging (at +25°C) first year	$\Delta f/f_0$	± 5 ppm / year max.	
Sealing		1×10^{-2} $\mu\text{Pa} \cdot \text{m}^3/\text{s}$ max.	

Dimensions (Units: mm)



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All specifications subject to change without notice.