

### Description

- Ceramic resonators in the MHz band for microprocessors.
- Applicable oscillating frequency range: 16.93MHz, 33.86MHz.

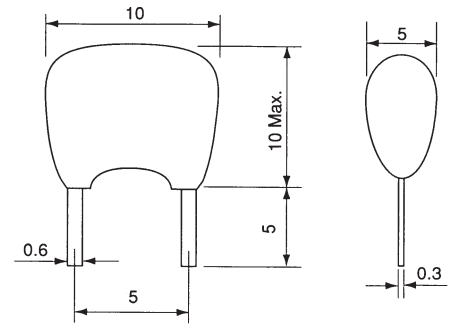
### Features

- Precise oscillating frequency without adjustment.
- May be used with a variety of ICs.
- Lead-free terminations

### Applications

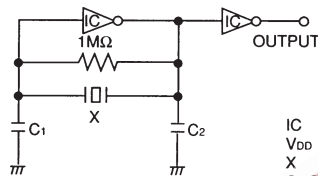
- Reference signal oscillators for—Microcomputers (CD/MD players, CD-ROM, CD-R, etc.)
- Digital applications equipment including measuring instruments, communications equipment, toys, etc.

### Dimensions



Unit: mm

### Test Circuit



IC : TC74HCU04AP  
 V<sub>DD</sub> : +5V  
 X : Ceramic element  
 C<sub>1</sub>, C<sub>2</sub> : External capacitors

## STANDARD RESONATORS SELECTION GUIDE

### TYPE CRHD (CERASONATOR®) MHz Band Resonators

TOKO Part Number*	Oscillating Frequency (Fosc) (MHz)	Resonance Impedance (Ω)	Fosc Temp. Stability (-20°C ~ +80°C)	External Capacitor	
				C <sub>1</sub> (pF)	C <sub>2</sub> (pF)
DCRHD16.93	16.93±0.5%	40 max.	±0.3%	30	30
DCRHD33.86	33.86±0.5%	40 max.	±0.3%	5	5

- Oscillating frequency tolerance can be designed narrower than Fosc±0.5%, but Fosc±0.2%.
- TOKO performs matching evaluations for all types of ICs. Please contact TOKO regarding applicable products.



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