

SPECIFICATION

1. SCOPE

This specification covers the piezoelectric ceramic ring for bolt-clamped ultrasonic transducer application.

2. MODEL

PED3813T63F44S (Piezo ceramic material type QA)

3. SPECIFICATION

3.1. Dimensions

As the per drawing No.DW-PED3813T63-1

3.2. Electrical specification

3.2.1. Resonant frequency f_r :

$$f_r = 44\text{KHz} \pm 3\text{KHz}$$

3.2.2. Resonant impedance Z_m :

$$Z_m \leq 20\Omega$$

3.2.3. Electromechanical coupling coefficient K_{eff} :

$$K_{\text{eff}} \geq 40\%$$

3.2.4. Static capacitance C_s :

$$C_s = 1800\text{pF} \pm 20\% @ 1\text{KHz}$$

4. Testing Procedure

4.1. Testing condition :

$23 \pm 3^\circ\text{C}$ 、40~70% R.H.

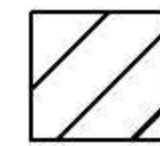
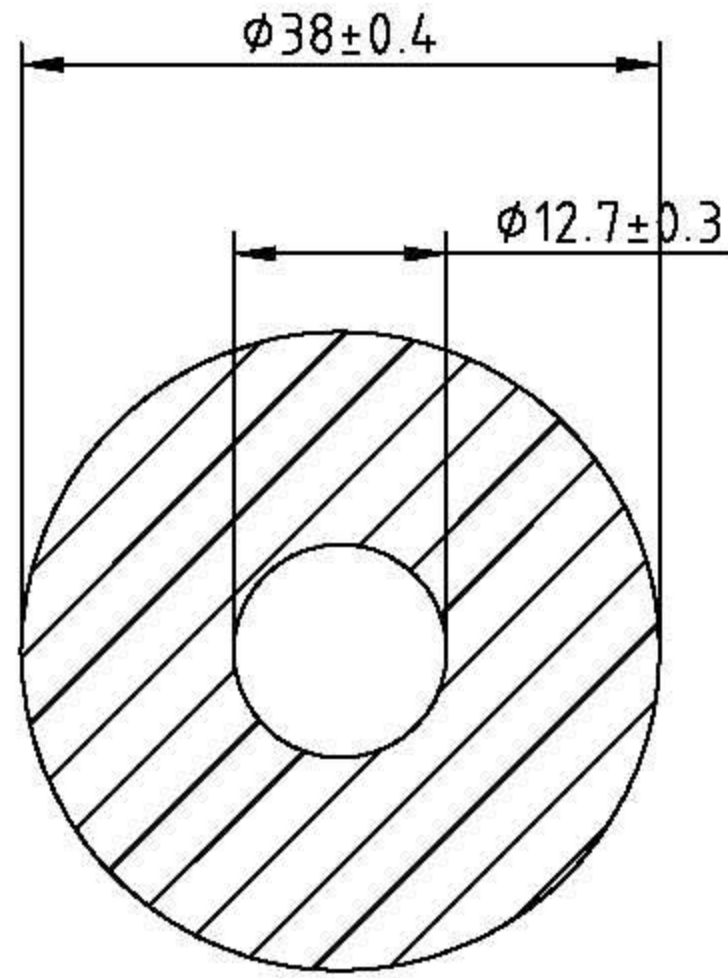
4.2. f_r 、 Z_m 、 K_{eff} :

Radial mode by impedance analyzer

4.3. C_s :

LCR meter at 1KHz、1Vrms

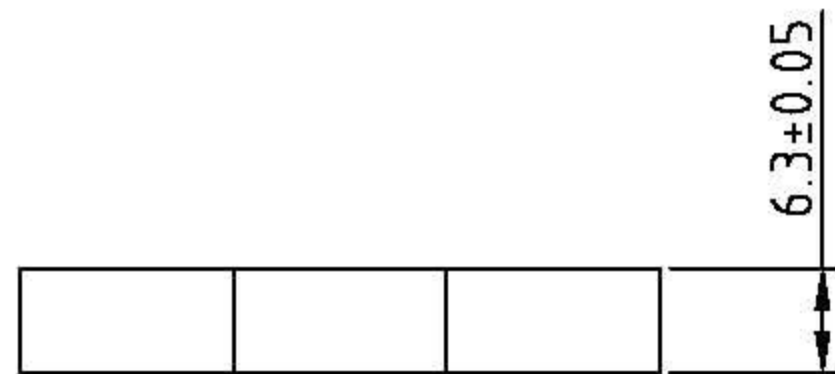
Design Chien Chen	Check Clement Chou	Approval Clement Chou	Model PED3813T63F44S
Title PIEZOELECTRIC CERAMICS			Document No. EL-SP-PE-073
PENZEL COMERCIO EXTERIOR LTDA.		Version 1.1	Issue Date 2005/12/26



Fired on silver electrode



Polarization direction



6.3 ± 0.05

Design S. Z. Wang	Checked Clement Chou	Approval Clement Chou	Model PED3813T63F44S
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