# SPECIFICATION

1. SCOPE

This specification covers the piezoelectric ceramics for thickness vibration application.

2. MODEL

PED25T04F5000R (Piezoelectric ceramic material QA)

3. SPECIFICATION

3.1.Dimensions

As the per drawing No. DW-PED25T04-02

3.2.Electrical specification

3.2.1.Resonant frequency $f_r$ :

$f_r$ = 5MHz ± 200KHz

3.2.2.Resonant impedance $Z_m$ :

$Z_m \leq 0.5\Omega$

3.2.3.Electromechanical coupling coefficient $K_t$ :

$K_t \geq 40\%$

3.2.4. Static capacitance $C_S$ :

$C_S$ = 14000pF±15% @1KHz

4. Testing Procedure

4.1. Testing condition：

23±3℃、40～70%R.H.

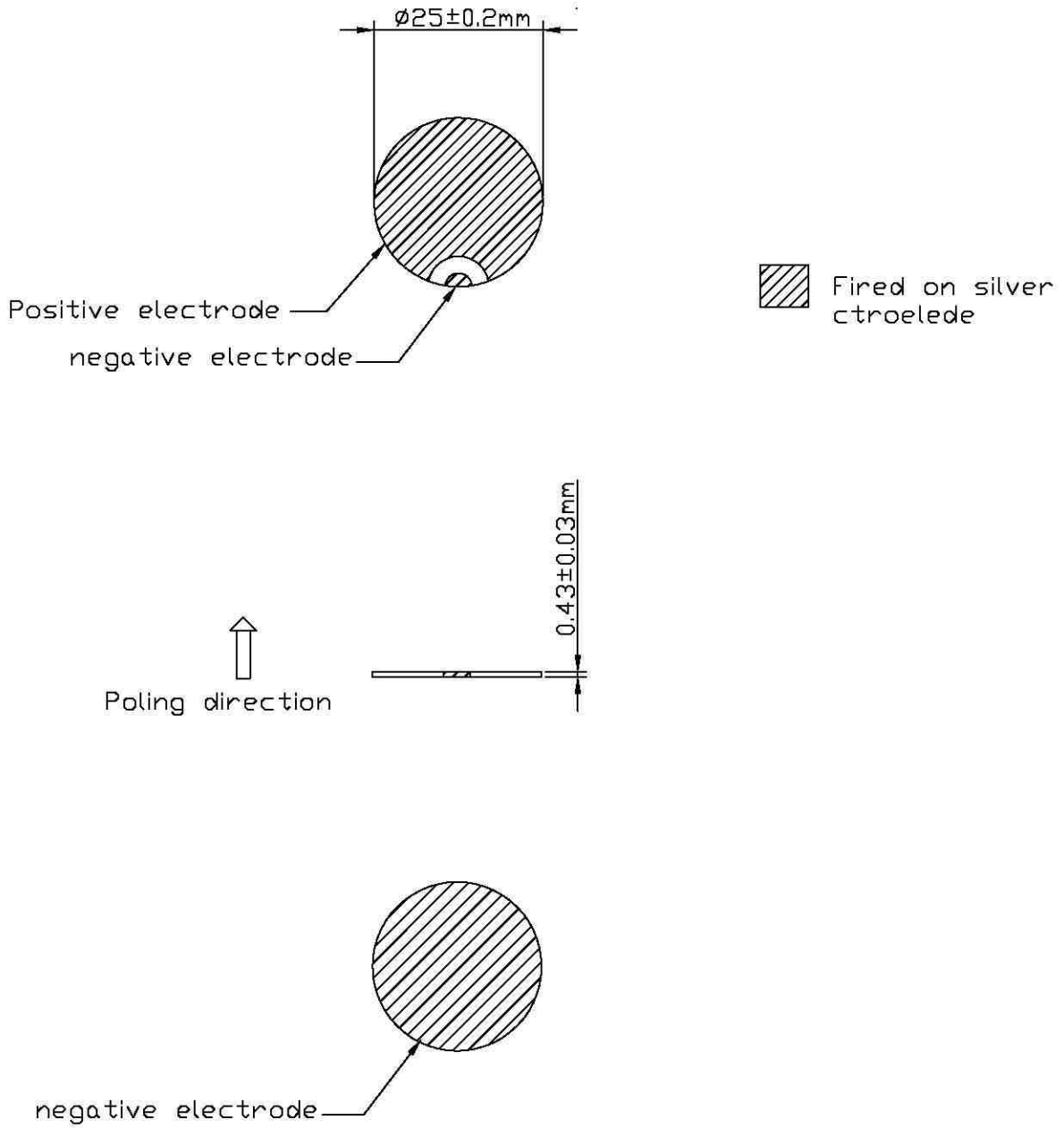
4.2. $f_r$、$Z_m$、$K_t$ :

Thickness mode by impedance analyzer

4.3. $C_S$ :

LCR meter at 1KHz、$1V_{rms}$

| Design | Check | Approval | Model | |
|---|---|---|---|---|
| Chien Chen | Clement Chou | Clement Chou | PED25T04F5000R | |
| Title | | | Document No. | |
| PIEZOELECTRIC CERAMIC TRANSDUCER | | | EL-SP-PE-072 | |
| PENZEL COMERCIO EXTERIOR LTDA. | | | Version 1.0 | Issue Date 2003/12/10 |




| Design | Checked | Approval | Model | |
|---|---|---|---|---|
| Eric Tu | Clement Chou | Clement Chou | PED25T04F5000R | |
| Title: Piezoelectric Ceramics | | | Drawing Number: DW-PED25T04-02 | |
| PENZEL COMERCIO EXTERIOR LTDA. | | | Version: 1.0 | Issue Date: 2003/12/10 |