

Metallized Piezo Film Sheets



- Thin, flexible film sheets
- Multi-purpose – design your own sensor
- Different electrode options – sputtered metallization or silver ink
- Various film thickness options

DESCRIPTION

Piezo film sheets are available in a variety of different film sizes and thicknesses. These can be fabricated into simple transducers or used as full size sheets in applications such as speakers.

Metallization options include a compliant silver ink as well as sputtered metallization. The silver ink is best for applications where high mechanical stress will be applied. Silver ink also lends itself to custom electrode patterns for easy lead attachment. The thin, sputtered metallization is more brittle and can be used where signal to noise requirements dictate very low mass loading by the electrodes. Our standard sputtered metallization is 400 Å of copper covered with 150 Å of nickel, which has good conductivity and is resistant to oxidation. Other metallizations such as gold are available on a custom basis with a set up fee. For the sputtered metallized film, there is no border.

Note: sheets with silver ink electrodes should not be cut through, as the ink will form a short-circuit over the cut edge. Sputtered metalized sheets can be cut using a sharp blade. Use of a cutting mat is recommended. It may be necessary to put a border on the cut to make sure that it will not short out. The Cu-Ni metalized film may have shorts in it when shipped. These sheets are cut from a roll without a border.

FEATURES

- Film thickness options: 28 µm, 52 µm, 110 µm PVDF
- Electrode type options: silver ink and Cu-Ni metallization
- Sheet size options: 8" x 5.5" and 8" x 11"

APPLICATIONS

- Film transducer
- Speaker element

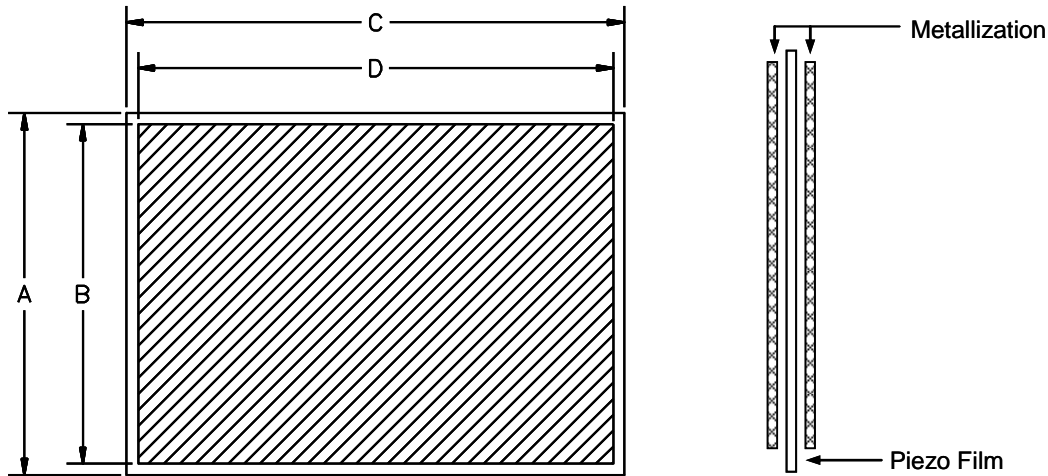
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PERFORMANCE SPECIFICATIONS

Parameter	Typical Value
Electro-Mechanical Conversion	(1 direction) 23×10^{-12} m/V, 700×10^{-6} N/V
	(3 direction) -33×10^{-12} m/V
Mechano-Electrical Conversion	(1 direction) 12×10^{-3} V per microstrain, 400×10^{-3} V/ μ m, 14.4 V/N
Pyro-Electrical Conversion	30×10^{-6} C/m ² /K
	8 V/K (at 25°C)
Capacitance	1.36×10^{-9} F
	Dissipation factor of 0.018 at 10 kHz
	Impedance of 12 k Ω at 10 kHz
Maximum Operating Voltage	DC: 280 V (yields 7 μ m displacement in 1 direction)
	AC: 840 V (yields 21 μ m displacement in 1 direction)
Maximum Applied Force (at break, 1 direction)	6-9 kgF (yields voltage output of 830 V to 1275 V)

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MECHANICAL DIMENSIONS IN INCHES (mm)



Note: stretch direction ("1" axis, d_{31} response) is aligned parallel with dimensions C/D

Description	Part Number	Metallization	Total Thickness (μm)	A Film	B Electrode	C Film	D Electrode
28 μm piezo film	1-1003702-7	Cu-Ni	28	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)
28 μm piezo film	1-1004347-0	Silver Ink	40	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)
28 μm piezo film	1-1004346-0	Silver Ink	40	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)
52 μm piezo film	2-1003702-7	Cu-Ni	52	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)
52 μm piezo film	2-1004347-0	Silver Ink	64	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)
52 μm piezo film	2-1004346-0	Silver Ink	64	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)
110 μm piezo film	3-1003702-7	Cu-Ni	110	8.00 (203)	8.00 (190)	11.00 (280)	11.00 (267)
110 μm piezo film	3-1004347-0	Silver Ink	122	8.00 (203)	7.50 (190)	5.50 (140)	5.00 (127)
110 μm piezo film	3-1004346-0	Silver Ink	122	8.00 (203)	7.50 (190)	11.00 (280)	10.50 (267)

TECHNICAL CONTACT INFORMATION

Asia

联系方式

智美康科技（深圳）有限公司

ZHIMK TECHNOLOGY (SHEN ZHEN) CO.,LTD.
Shenzhen, China 518033

Tel: +86 755 8303 5030/8989 4565, 13048972929

Email: liulijun18@126.com

www.zhmk.com.cn