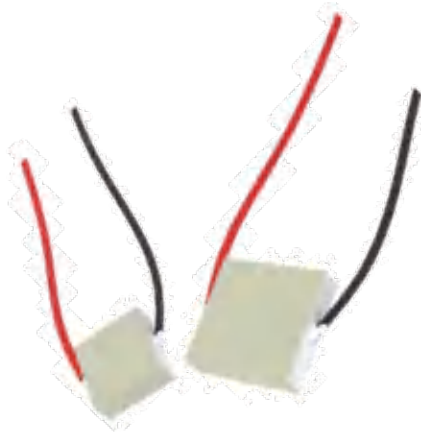


Piezo Chip Actuator



Features

- AC lifetime: 10^9 cycles
- Operating voltage: -20 to +150V
- Microsecond-level response
- Vacuum compatible up to 10^{-6} Pa
- Sub-nanometer resolution
- Curie temperature of 230°C

Description

The Piezo Chip Actuator consists of multiple ceramic layers and electrode layers stacked and intersected internally, with external electrodes printed on both sides to lead out the internal electrodes. Through precision grinding processes, the height tolerance of each piezoelectric ceramic is controlled to be smaller than $\pm 5\mu\text{m}$. The company has achieved seamless integration from piezoelectric ceramic powder to the finished actuator, and mass production has been implemented. Currently, the products are applied in the fields of nanoscale positioning, precision manufacturing, and dispensing valve technology.

Applications

- Industrial automation
- Life Science
- Scientific research
- Semiconductor equipment
- Optical adjustment

Technical Specifications

	Dimensions	Displacement*	Push force**	Electrical capacitance***	Resonant frequency
Unit	mm×mm×mm	μm	N	nF	kHz
Tolerance		$\pm 15\%$	Max. value	$\pm 15\%$	Max. value
PAA-S2-2	2×2×2	2.2	160	22	500
PAA-S3-2	3×3×2	2.2	360	70	500
PAA-S5-2	5×5×2	2.2	1000	225	500
PAA-S7-2	7×7×2	2.2	2000	390	500
PAA-S10-2	10×10×2	2.2	4000	800	500

*Displacement test: drive voltage range 0 to 150V

**Thrust test: drive voltage range 0 to 150V

***Capacitance test conditions: ambient temperature environment, 1Vpp/1kHz

The tolerance of dimension A*B within $\pm 10\mu\text{m}$, and the tolerance of H within $\pm 5\mu\text{m}$

The default configuration does not involve soldering wire harness for the Piezo Chip Actuator

Optional soldering of standard wiring harness available, length 75mm, AWG32, PTFE insulation, followed by 'W' in the product code

Other specifications can be customized on request