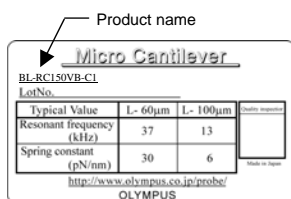


Micro cantilever

Product name

BL-RC150VB-C1 (Bio-Lever series)

Silicon nitride Rectangular cantilever with V-shaped tip



BL - RC 150 V B - C 1

BL : Bio Lever

RC : Rectangular cantilever

150 : Lever thickness (nm) , rough value

V : V-shaped tip

B : Both side metal coating

C : 24 chips / unit

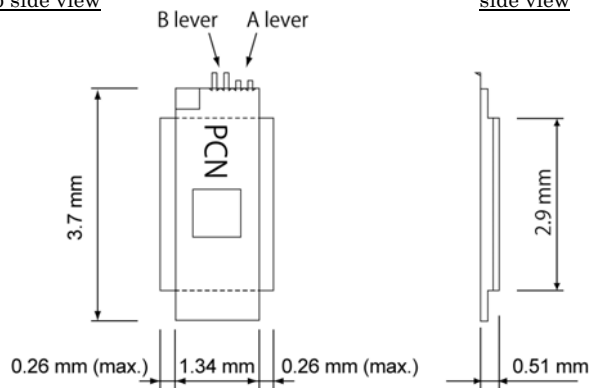
1 : Chip thickness 0.5 mm

Chip

There are two types of cantilevers (60 μm and 100 μm long) on one side of the glass chip.

Dimension

tip side view



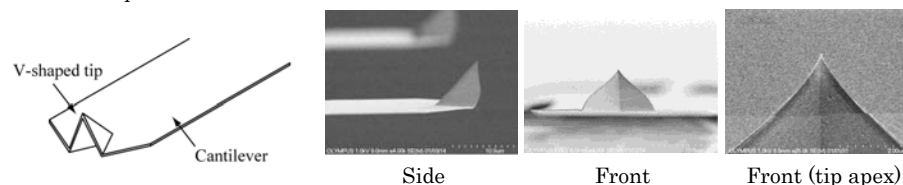
Material

Tip & Lever	Silicon nitride
Metal coating	Gold / Chromium
Chip	Pyrex glass

Tip

The tip is a hollow pyramid sliced in half vertically with a sharp apex.

The tip is fabricated on the exact end of each cantilever.



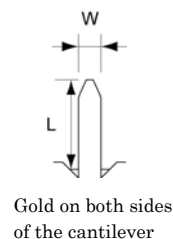
Dimension

	Typical value	Typical range
Tip height (μm)	7	5 - 10
Tip radius (nm)	30	less than 40
Tip angle (deg.)		(side) less than 45 (front) less than 90

Cantilever

Dimension

	A lever	B lever
Cantilever length L (μm)	60 (± 10)	100 (± 10)
Cantilever width W (μm)	30 (± 2)	
Cantilever thickness t (μm)	0.13 (± 0.03)	
Metal coat thickness tm (μm)	Tip side 0.02 Back side 0.03	(± 0.01)



Calculated mechanical properties

		Typical value	Typical range
Resonant frequency (kHz)	A lever	37	19 - 73
	B lever	13	7 - 21
Spring constant (pN/nm) (N/m)	A lever	$\frac{30}{0.03}$	$\frac{9 - 96}{0.009 - 0.096}$
	B lever	$\frac{6}{0.006}$	$\frac{2 - 16}{0.002 - 0.016}$

OLYMPUS

BL-RC150VB-C1

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