

Micro cantilever

Bio-Lever series

Product name

BL-RC150VB-C1

Silicon nitride Rectangular cantilever with V-shaped tip

Product name			
Micro Cantilever			
BL-RC150VB-C1 : Bio-Lever			
Lot No.			
Typical Value	L=60um	L=100um	Quality inspection
Resonant frequency (kHz)	37	13	
Spring constant (pN/nm)	30	6	
http://www.olympus.co.jp/probe/			
OLYMPUS			

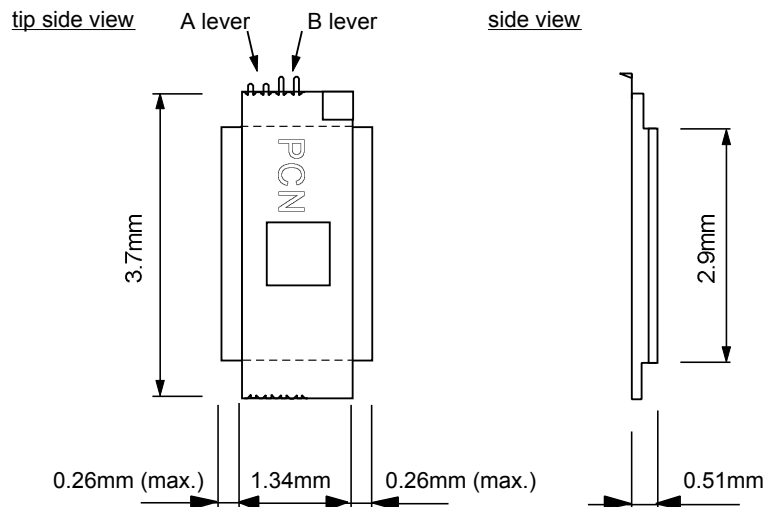
BL - RC 150 V B - C 1

BL : Bio-Lever series
 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 0.5mm

Chip

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

Dimension

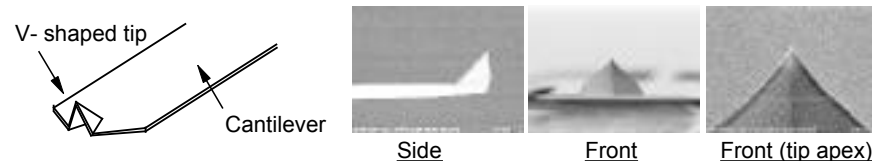


Material

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.



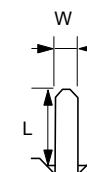
Dimension

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

Cantilever

Dimension

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



Gold on both sides of the cantilever

Calculated mechanical properties

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

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01-09 BL-RC150VB-C1