

## Three-Axis Cube-Type Accelerometer

### DETAILS

The B01Y36 B02Y36 is a three-axis micro-miniature accelerometer featuring a piezoelectric ceramic shear structure, a wide-band frequency response, and a custom ASIC signal conditioning circuit. The housing is made of a low-density titanium alloy and is laser-welded.

### FEATURES

- Wide bandwidth frequency response
- Microminiature, Light weight

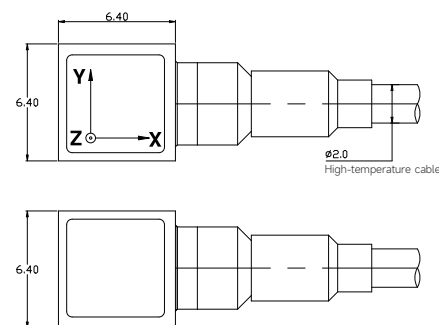
### TYPICAL APPLICATIONS

- Drop test and package test
- Testing of equipment with limited installation space
- Testing of small components
- Environmental stress screening tests
- Powertrain NVH testing

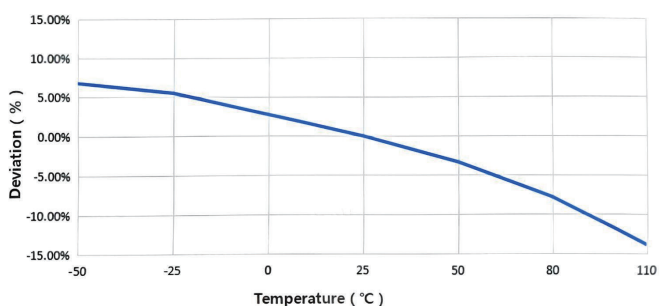
**Fig\_1** Picture of BXXY36

**Fig\_2** Product wiring definition diagram

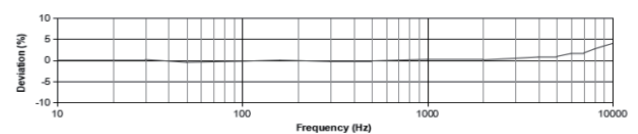
**Fig\_3** Dimensions of BXXY36



**Fig\_4** Typical Temperature Response



**Fig\_5** Typical Frequency Response



## Specifications-BXXY36

MODEL NUMBER		UNIT	B01Y36	B02Y36
<b>PERFORMANCE</b>				
Sensitivity <sup>1</sup>		mV/g	5(±20%)	10(±20%)
		mV/(m/s <sup>2</sup> )	0.5	1
Measurement Range		g	±1000	±500
Broadband Resolution <sup>2</sup>		g rms	0.002	0.001
Non-Linearity <sup>3</sup>		%	1	
Frequency Range	± 5%	Hz	5-10k	5-8k
	±10%		2-12k	2-10k
Resonance Frequency <sup>2</sup>		Hz	≥50k	≥50k
Discharge Time Constant <sup>2</sup>		s	≤1	
Transverse Sensitivity		%	≤5	
<b>ELECTRICAL</b>				
Excitation Voltage		VDC	20-30	
Constant Current Excitation		mA	2-20	
Output Impedance		Ω	≤100	
Output Bias Voltage		V	8-12	
Electrical Isolation		Ω	-	
Spectral Noise <sup>2</sup>	10Hz	μg/√Hz	300	150
	100Hz		80	40
	1000Hz		40	20
<b>ENVIRONMENTAL</b>				
Sinusoidal Vibration Limit <sup>4</sup>		g rms	2000	1500
Shock Limit <sup>4</sup>		g pk	3000	2000
Temperature Range		°C	-50~100	
		°F	-58~212	
Temperature Response <sup>2</sup>		-	See typical curve	
<b>PHYSICAL</b>				
Sealing		-	Laser welding IP68	
Sensing Element		-	Piezoelectric ceramics	
Housing Material		-	Titanium Alloy	
Size		mm	6.40 Cube	
		in	0.252 Cube	
Electrical Connector		-	Connected cable 4-pin	
Mounting Thread		-	Adhesive	
Weight <sup>2</sup>		g	1	1
		oz	0.035	0.035
Mounting Torque		-	-	
Recommended Accessories	Cable	-	BB	
	Mounting Base	-	H03C60	
TEDS Model Number <sup>5</sup>		-	No	

## Additional Information

### Note:

- @ 160Hz, 24VDC, 4mA conditions
- Typical values
- JBT 6822-2018 7.12.1 Vibration Testing Method
- References the mechanical structure of the sensor not being damaged in a non powered state, rather than in a working state
- Some products may have changes in size after adding TEDS

## BXXY36

Supplied Accessories:

- Product Verification Report

### COMPLIANCE WITH STANDARDS

