## T3CB PIEZOTRONICS



## MODELS 356AO1, 356A03 HTJ356B01 \& J356A03

## MINIATURE TRIAXIAL ICP ${ }^{\circledR}$ ACCELEROMETER

Small 0.25 ( 6.4 mm ) adhesive mount cube
Ground isolated models available
High overload limit of 5000 g or 10000 g
$5 \mathrm{ft}(1.5 \mathrm{~m})$ mating cable assembly with triaxial BNC plug termination included (except /NC models)

## TYPICAL APPLICATIONS

Small component qualification
Structural vibration
Environmental Stress Screening
Noise Vibration \& Harshness
Vibration measurements with space restrictions
pcb.com|18008288840

| SPECIFICATIONS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model Number | (1) 356A01 \& 356A01/NC |  | HTJ356B01/NC |  | (1) 356A03 \& 356A03/NC |  | J356A03/NC |  |
|  | English | SI | English | SI | English | SI | English | SI |
| Performance |  |  |  |  |  |  |  |  |
| Sensitivity ( $\pm 20 \%$ ) | $5 \mathrm{mV} / \mathrm{g}$ | $0.51 \mathrm{mV} /\left(\mathrm{m} / \mathrm{s}^{2}\right)$ | $5 \mathrm{mV} / \mathrm{g}$ | $0.51 \mathrm{mV} /\left(\mathrm{m} / \mathrm{s}^{2}\right)$ | $10 \mathrm{mV} / \mathrm{g}$ | $1.02 \mathrm{mV} /\left(\mathrm{m} / \mathrm{s}^{2}\right)$ | $10 \mathrm{mV} / \mathrm{g}$ | $1.02 \mathrm{mV} /\left(\mathrm{m} / \mathrm{s}^{2}\right)$ |
| Measurement Range | $\pm 1000 \mathrm{~g} \mathrm{pk}$ | $\pm 9810 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 1000 \mathrm{~g} \mathrm{pk}$ | $\pm 9810 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 500 \mathrm{~g} \mathrm{pk}$ | $\pm 4905 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 500 \mathrm{~g} \mathrm{pk}$ | $\pm 4905 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ |
| Frequency Range ( $\pm 5$ \%) | 2 to 8000 Hz (y or z axis) 2 to 5000 Hz (x axis) |  |  |  |  |  |  |  |
| Frequency Range (+1 dB)(x axis) | $\geq 8 \mathrm{kHz}$ |  |  |  |  |  |  |  |
| Resonant Frequency | $\geq 50 \mathrm{kHz}$ |  |  |  |  |  |  |  |
| Broadband Resolution (1 to 10000 Hz ) | $0.003 \mathrm{grms} \quad\left(0.03 \mathrm{~m} / \mathrm{s}^{2} \mathrm{rms}\right)$ |  |  |  |  |  |  |  |
| Non-Linearity | $\leq 1 \%$ |  |  |  |  |  |  |  |
| Transverse Sensitivity | $\leq 5 \%$ |  |  |  |  |  |  |  |
| Environmental |  |  |  |  |  |  |  |  |
| Overload Limit (Shock) | $\pm 10000 \mathrm{~g} \mathrm{pk}$ | $\pm 98100 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 10000 \mathrm{~g} \mathrm{pk}$ | $\pm 98100 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 5000 \mathrm{~g} \mathrm{pk}$ | $\pm 49050 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ | $\pm 5000 \mathrm{~g} \mathrm{pk}$ | $\pm 49050 \mathrm{~m} / \mathrm{s}^{2} \mathrm{pk}$ |
| Temperature Range (Operating) | -65 to +250 ${ }^{\circ} \mathrm{F}$ | -54 to $+121^{\circ} \mathrm{C}$ | -65 to +356 ${ }^{\circ} \mathrm{F}$ | -54 to $+180^{\circ} \mathrm{C}$ | -65 to $+250{ }^{\circ} \mathrm{F}$ | -54 to $+121^{\circ} \mathrm{C}$ | -65 to +250 ${ }^{\circ} \mathrm{F}$ | -54 to $+121^{\circ} \mathrm{C}$ |
| Electrical |  |  |  |  |  |  |  |  |
| Excitation Voltage | 18 to 30 VDC |  |  |  | 22 to 30 VDC |  |  |  |
| Constant Current Excitation | 2 to 20 mA |  | $\begin{aligned} & 2 \text { to } 20 \mathrm{~mA} \leq+250^{\circ} \mathrm{F} \\ & \left(+121^{\circ} \mathrm{C}\right) \leq 2 \text { to } 4 \mathrm{~mA} \end{aligned}$ |  | 2 to 20 mA |  |  |  |
| Output Impedance | $\leq 200$ ohm |  |  |  |  |  |  |  |
| Output Bias Voltage | 7 to 12 VDC |  |  |  | 9 to 16 VDC |  |  |  |
| Discharge Time Constant | 0.24 to 1.0 sec |  |  |  |  |  |  |  |
| Settling Time (within 10\% of bias) | $<3$ sec |  |  |  |  |  |  |  |
| Spectral Noise ( 1 Hz ) | $1200 \mu \mathrm{~g} / \sqrt{\mathrm{Hz}} \quad\left(11772\left(\mu \mathrm{~m} / \mathrm{sec}^{2}\right) / \mathrm{Hz}\right)$ |  |  |  |  |  |  |  |
| Spectral Noise ( 10 Hz ) | $300 \mu \mathrm{~g} / \sqrt{\mathrm{Hz}} \quad\left(2943\left(\mu \mathrm{~m} / \mathrm{sec}^{2}\right) / \sqrt{\mathrm{Hz}}\right)$ |  |  |  |  |  |  |  |
| Spectral Noise ( 100 Hz ) | $100 \mu \mathrm{~g} / \sqrt{\mathrm{Hz}} \quad\left(981\left(\mu \mathrm{~m} / \mathrm{sec}^{2}\right) / \sqrt{\mathrm{Hz}}\right)$ |  |  |  |  |  |  |  |
| Spectral Noise (1 kHz) | $30 \mu \mathrm{~g} / \sqrt{ } \mathrm{Hzz} \quad\left(294\left(\mu \mathrm{~m} / \mathrm{sec}^{2}\right) / \sqrt{\mathrm{Hz}}\right)$ |  |  |  |  |  |  |  |
| Electrical Isolation | None |  | Ground Isolated $>100000000$ ohm |  | None |  | Ground Isolated > 100000000 ohm |  |
| Physical |  |  |  |  |  |  |  |  |
| Element / Housing Materials | Shear Ceramic / Hermetic Titanium |  |  |  |  |  |  |  |
| Size (Height x Length x Width) | $\begin{gathered} 0.25 \times 0.25 \mathrm{x} \\ 0.25 \mathrm{in} \\ \hline \end{gathered}$ | $\begin{gathered} 6.35 \times 6.35 \times \\ 6.35 \mathrm{~mm} \\ \hline \end{gathered}$ | $\begin{gathered} 0.28 \times 0.28 \mathrm{x} \\ 0.28 \mathrm{in} \\ \hline \end{gathered}$ | $\begin{gathered} 7.10 \times 7.10 \times \\ 7.10 \mathrm{~mm} \\ \hline \end{gathered}$ | $\begin{gathered} 0.25 \times 0.25 \mathrm{x} \\ 0.25 \mathrm{in} \\ \hline \end{gathered}$ | $\begin{gathered} 6.35 \times 6.35 \times \\ 6.35 \mathrm{~mm} \\ \hline \end{gathered}$ | $\begin{gathered} 0.28 \times 0.28 \mathrm{x} \\ 0.28 \text { in } \\ \hline \end{gathered}$ | $\begin{gathered} 7.10 \times 7.10 \times \\ 7.10 \mathrm{~mm} \\ \hline \end{gathered}$ |
| Weight (without cable) | 0.0402 | 1.0 gm | 0.0402 | 1.2 gm | 0.040 z | 1.0 gm | 0.04 oz | 1.2 gm |
| Electrical Connector | Integral 034 4-Conductor Shielded Cable, Side Exit |  |  |  |  |  |  |  |
| Cable Termination | 1/4-28 4-Pin Jack |  |  |  |  |  |  |  |
| Cable Length | 5 ft ( 1.5 m ) |  |  |  |  |  |  |  |
| Mounting | Adhesive |  |  |  |  |  |  |  |
| TEDS Model Available | TLD356A01 |  | N/A |  | TLD356A03 |  | N/A |  |
| Accessories |  |  |  |  |  |  |  |  |
| Model 080A109 Petro Wax Model 080A90 Quick Bonding Gel Calibration per ACS-1T, NIST traceable triax Model 034G05 4-cond. Shielded cable, | xial amplitude res (1.5M), 4-pin plug | onse, 10 Hz to up to (3) BNC plugs | er 5\% frequency Not included with | /NC models |  |  |  |  |



