

Doc No PERFORMANCE SPECIFICATION PS3533A 3533A Accelerometer, Triaxial, IEPE

REV C. ECN 15062, 05/21/19



- GROUND ISOLATED
- HERMETICALLY SEALED
- STUD MOUNT
- TEDS FEATURE

| | | ENGLISH | | SI | |
|---|-----------|--------------------|---------------|--------------------|--------------------|
| PHYSICAL | | | | | |
| Weight, Max | | 1.0 | oz | 28 | grams |
| Mounting | | 10-32 UNC-2B | | 10-32 UNC-2B | |
| Connector [1] | Type | 4 pin Mighty Mouse | | 4 pin Mighty Mouse | |
| | Material | 304L | | 304L | |
| Housing | Material | 304L | | 304L | |
| | Isolation | Case Isolated | | Case Isolated | |
| Sensing Element | Material | Piezoelectric | | Piezoelectric | |
| | Element | Shear | | Shear | |
| PERFORMANCE | | | - | | • |
| Sensitivity, ±5% [2] | | 5 | mV/g | 0.51 | mV/m/s^2 |
| Acceleration Range, ± | | 1000 | Gpeak | 9810 | m/s^2 peak |
| Frequency Range, ±5% | | 3.3-1000 | Hz | 3.3-1000 | Hz |
| Frequency Range, ±15% | | 2.2-3000 | Hz | 2.2-3000 | Hz |
| Frequency Range, ±3dB | | 1.1-6000 | Hz | 1.1-6000 | Hz |
| Resonance Frequency | | >50 | kHz | >50 | kHz |
| Linearity [3] | | 1 | %F.S. | 1 | %F.S. |
| Transverse Sensitivity, Max | | 6 | % | 6 | % |
| Noise floor | | 0.007 | Grms | 0.069 | m/s^2 rms |
| Spectral Noise | 1Hz | 1000 | μGrms/sqr(Hz) | 9810 | μm/s^2 rms/sqr(Hz) |
| | 10Hz | 500 | μGrms/sqr(Hz) | 4905 | μm/s^2 rms/sqr(Hz) |
| | 100Hz | 100 | μGrms/sqr(Hz) | 981 | μm/s^2 rms/sqr(Hz) |
| | 1000Hz | 60 | μGrms/sqr(Hz) | 589 | µm/s^2 rms/sqr(Hz) |
| | 10000Hz | 50 | μGrms/sqr(Hz) | 491 | μm/s^2 rms/sqr(Hz) |
| ELECTRICAL | | | ı . | | 1 . |
| Supply Current Range [4] | | 2 to 20 | mA VDC | 2 to 20 | mA VDC |
| Compliance Voltage Range Output Impedance, Typ. | | +18 to +30 100 | Ω | +18 to +30 | VDC Q |
| Output Impedance, Typ. Output Bias Voltage | | +7 to +13 | VDC | +7 to +13 | VDC |
| Discharge Time Constant | | 0.15 to 0.5 | Sec | 0.15 to 0.5 | Sec |
| Discharge Time Constant | | 0.13 to 0.3 | 000 | 0.13 to 0.3 | 000 |
| ENVIRONMENTAL | | | • | i | • |
| Shock Max | | 5000 | g pk | 49050 | m/s^2 |
| Vibration Max | | 1500 | g pk | 14715 | m/s^2 |
| Operating Temperature | | -60 to +250 | °F | -51 to +121 | °C |
| Seal | | Hermetic | | Hermetic | |
| Base Strain Sensitivity | | 0.002 | g/με | 0.02 | m/s^2/με |
| TEDS | | IEEE 1451.4 | | IEEE 1451.4 | |
| ĺ | | | - | | • |

| This family also includes: | | | | | | | | | | |
|----------------------------|--------------------|---------------|-------------------------|-----------------|---------------------|--|--|--|--|--|
| Model | Sensitivity (mV/g) | Range (Gpeak) | Noise Resolution (Grms) | Temp Range (°F) | Time Constant (sec) | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

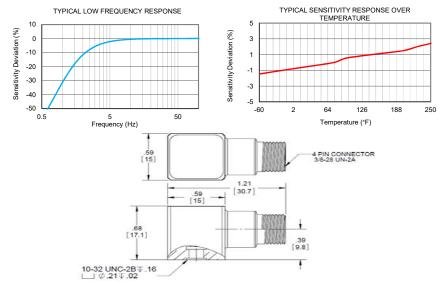
Refer to the performance specifications of the products in this family for detailed description.

Supplied Accessories:

- 1) Accredited Calibration Certificate (ISO 17025).
- 2) Mounting Stud Model 6200 Suplied, QTY 1

Notes:

- [1] Mates with Glenair connector 800-006-16-Z1-6-4SN. Dytran cable model 6669AXX.
- [2] Measured At 100 Hz, 1 Grms per ISA RP 37.2.
- [3] Measured using zero-based best straight-line method.
- [4] Do not apply power to this device without current limiting, 20mA Max, to do so will destroy the integral IC amplifier.
- [5] In the interest of constant product improvement, we reserve the rights to change the specifications without notice. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary overtime. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.



Units on the line drawing are in inches, units in brackets are in millimeters. Refer to 127-3533A for more information.

