Model Number	SURFACE MOUNT PIEZORESISTIVE TRIAXIAL SHOCK ACCELEROMETER	Revision: A
3503C202KG		ECN #: 48004

Performance	**ENGLISH**	**SI**	
Sensitivity(± 50 %)(at 5 VDC excitation)	0.10 mV/g	0.01 mV/(m/s²)	[1]
Sensitivity	0.02 mV/V/g	0.002 mV/V/(m/s²)	[5]
Measurement Range	± 2 kg	± 19,613 m/s² pk	
Frequency Range(± 1 dB)	0 to 10,000 Hz	0 to 10,000 Hz	[4]
Resonant Frequency	>20 kHz	>20 kHz	[4]
Damping Ratio(+/-0.3)	0.7 critical	0.7 critical	[4]
Non-Linearity(per 1000 g, 9810 m/s²)	≤ 1 %	≤ 1 %	
Transverse Sensitivity	≤ 3 %	≤ 3 %	
Environmental			
Overload Limit(Shock)	± 10,000 g pk	± 98,100 m/s² pk	[3]
Overload Limit(Mechanical Stops)	≥ 2.2 kg	≥ 21,582 m/s² pk	
Temperature Range(Storage)	-65 to 250 °F	-54 to 121 °C	
Temperature Range(Operating)	-65 to 150 °F	-54 to 65 °C	
Temperature Coefficient of Sensitivity	-0.11 %/°F	-0.20 %/°C	[4]
Zero g Offset Temperature Shift	± 20 mV	± 20 mV	
Base Strain Sensitivity	0.01 g/με	0.098 (m/s²)/με	[4]
Electrical			
Excitation Voltage(Maximum)	12 VDC	12 VDC	
Current Consumption	≤ 24 mA	≤ 24 mA	
Input Resistance(± 450 Ohm)	950 Ohm	950 Ohm	[1]
Output Resistance(± 1250 Ohm)	2750 Ohm	2750 Ohm	[1]
Offset Voltage	-20 to +20 mVDC	-20 to +20 mVDC	[1]
Settling Time	0.01 sec	0.01 sec	[2]
Physical			
Sensing Element	Piezoresistive MEMS	Piezoresistive MEMS	
Sensing Geometry	Full Active	Full Active	
Housing Material	Ceramic	Ceramic	
Sealing	Hermetic	Hermetic	
Size (Height x Length x Width)	0.15 in x 0.38 in x 0.28 in	3.8 mm x 9.6 mm x 7.1 mm	
Weight	0.029 oz	0.82 gm	[4]
Electrical Connector	Solder Tabs	Solder Tabs	
Mounting	Surface Mount	Surface Mount	

All specifications are at room temperature unless otherwise specified.
In the interest of constant product improvement, we reserve the right to change specifications without notice.

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1] Verified with test data provided on supplied calibration certificate.
[2] Settling Time is the maximum time after power-up for the Offset Voltage to be within +/-2% of Measurement Range output of the final offset value. Mounting surface must be at thermal equilibrium.
[3] Half-sine pulse duration, ≥ 20 µsec.
[4] Typical.
[5] Sensitivity is proportional to excitation voltage, and at other excitation values, sensitivity can be predicted from the 5VDC calibrated value with a small (<~.5%) increase in uncertainty.

SUPPLIED ACCESSORIES:

Model ACS-62BT Shock Pulse Calibration of triaxial piezoresistive shock accelerometer to maximum amplitude of 5k g, 5.0 VDC excitation

Entered: LK	Engineer: LAB	Sales: RWM	Approved: NJF	Spec Number:
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