

Model Number 3503C202KG		SURFACE MOUNT PIEZORESISTIVE TRIAXIAL SHOCK ACCELEROMETER			Revision: A ECN #: 48004
Performance		ENGLISH	SI		OPTIONAL VERSIONS
Sensitivity(± 50 %)(at 5 VDC excitation)		0.10 mV/g	0.01 mV/(m/s²)	[1]	Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.
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					NOTES:
Overload Limit(Shock)		± 10,000 g pk	± 98,100 m/s² pk	[3]	[1] Verified with test data provided on supplied calibration certificate.
Overload Limit(Mechanical Stops)		≥ 2.2 kg	≥ 21,582 m/s² pk		[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.
Temperature Range(Storage)		-65 to 250 °F	-54 to 121 °C		[3] Half-sine pulse duration, ≥ 20 µsec.
Temperature Range(Operating)		-65 to 150 °F	-54 to 65 °C		[4] Typical.
Temperature Coefficient of Sensitivity		-0.11 %/°F	-0.20 %/°C	[4]	[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.
Zero g Offset Temperature Shift		± 20 mV	± 20 mV		
Base Strain Sensitivity		0.01 g/µε	0.098 (m/s²)/µε	[4]	
Electrical					SUPPLIED ACCESSORIES:
Excitation Voltage(Maximum)		12 VDC	12 VDC		Model ACS-62BT Shock Pulse Calibration of triaxial piezoresistive shock accelerometer to maximum amplitude of 5k g, 5.0 VDC excitation
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.					

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