3 AXES TOUCH SENSOR

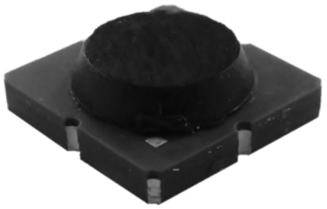
P/N: RBD-4720-S000

The smallest & thinnest Multi-Axis tactile sensor

ShokacChip is the smallest and thinnest multi-axis tactile sensor realized by MEMS technology. It has the great productivity and user- friendliness for mounting as MEMS sensor. The exterior material is the silicone rubber which is low compression set and high heat and chemical resistance. This new sensor can contribute to the innovation of new HM interface and input devises.

Features

Measure 3 axis direction force at once.
Designed for low force range application by Z axis 8N.
Compact design by Amplifier integrated. Digital output.



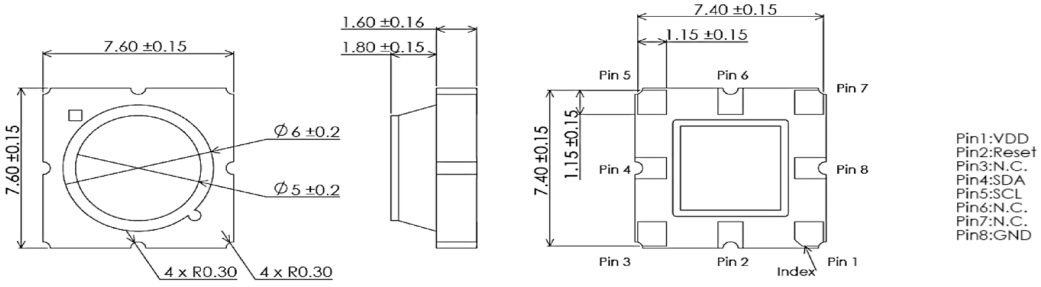
Data

Item		Unit
Force range Fz	8	N
Force range [1] Fx, Fy	±4	N
Overload [2]	120	%
Linearity Error	±9	%F.S.
Hysteresis	±5	%F.S.

Item		Unit
Response time	<20	ms
Sampling rate	10	ms
Baudrate	<70k	bps
Operating temp. [3]	0～50	℃
Storage temp. [3]	-20～80	℃
Weight	0.34	g

1) The number of Shear force (Fx,Fy) is under applying Z8N.
2) Overload is not the operating force range. Please use this sensor in the range of rated displacement.
3) No condensation.
4) Including compression test result by 1M cycles.
5) Refer page 3 of this datasheet for other detail information.

Dimension



(Note1) Data on this paper is not guaranteed number but measurement result. Subject to change without notice.

SPI & I2C Output are available.

RoHS COMPLIANT

Characteristics

Parameter	Test Conditions	Min	Typ.	Max	Unit
SENSITIVITY Z axis XY axis Sensitivity Change by Temp. Z axis XY axis			100 200 T.B.D. T.B.D.		LSB/N LSB/N %/°C %/°C
OFFSET 0N Offset vs. Temperature for Z-Axis 0N Offset vs. Temperature for X-, Y-Axes			0.03 0.02		N/°C N/°C
NOISE Z axis XY axis			2.2		LSB
OUTPUT DATA RATE & BANDWIDTH Output Data Rate (ODR)	User selectable		100		Hz
POWER SUPPLY Operating Voltage Range(Vs) Interface Voltage Range(Vddi/o) Supply Current			3.3		V
SOLDERING TEMPERATURE	T.B.D				

1）Ta=25℃、Vs=3.3V, $V_{DD\ I/O}$=3.3V without special remarks.