



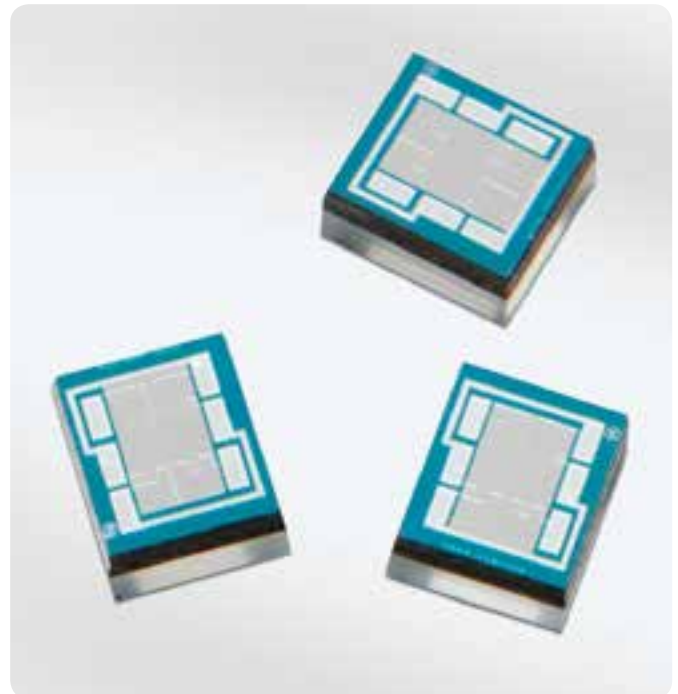
The 5000 Series is ideal for high-volume, high-pressure applications.

COMPANY: Merit Sensor is a leader in piezoresistive pressure sensing and partners with clients to create high performing solutions for a variety of applications and industries.

SENTIUM: Merit Sensor products incorporate a proprietary Sentium® technology, developed to provide a best-in-class operating temperature range (-40°C to 150°C) and superior stability.

TECHNOLOGY: Merit Sensor utilizes a piezoresistive Wheatstone bridge in a design that anodically bonds glass to a chemically etched silicon diaphragm. All products are RoHS compliant.

CAPABILITIES: Merit Sensor designs, engineers, fabricates, dices, assembles, and tests products from a state-of-the-art facility near Salt Lake City, Utah.



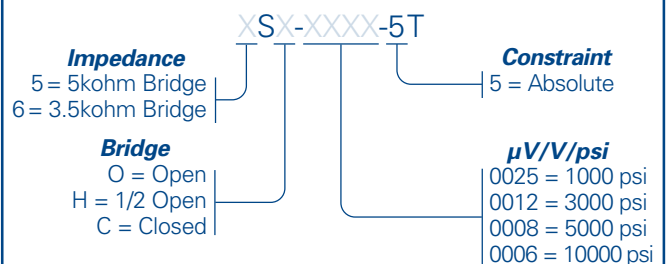
FEATURES

Range	1,000 to 10,000 psi (68.9 to 689 bar; 6,895 to 68,948 KPa)
Type	Absolute
Media	Clean, dry air and non-corrosive gases
Shipping	Wafers on tape, waffle pack
Flexibility	Sensitivity, resistance, bridge, constraint, etc.

BENEFITS

Performance	Enjoy best-in-class performance due to Merit's proprietary Sentium technology
Cost	Save money over time with high-performing die
Security	Feel confident doing business with an experienced company backed by a solid parent company (NASDAQ: MMSI)
Speed	Get to market quickly with creative and flexible solutions
Service	Experience prompt, personal, and professional support

5000 Series Part Number Configurator



Example: 5SO-0025-5T offers 5kohm Impedance, Open Bridge, 1000 psi and Absolute Constraint

Note: "T" in part number = sawn wafer on tape in metal frame

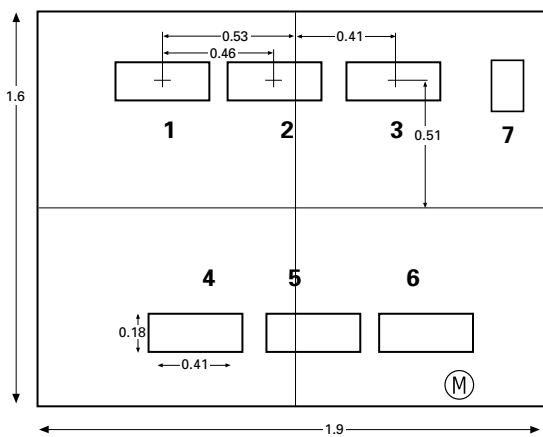
5000 Series Standard Part Numbers

5SO-0025-5T	5SC-0025-5T	6SH-0025-5T
5SO-0012-5T	5SC-0012-5T	6SH-0012-5T
5SO-0008-5T	5SC-0008-5T	6SH-0008-5T
5SO-0006-5T	5SC-0006-5T	6SH-0006-5T
5SH-0025-5T	6SO-0025-5T	6SC-0025-5T
5SH-0012-5T	6SO-0012-5T	6SC-0012-5T
5SH-0008-5T	6SO-0008-5T	6SC-0008-5T
5SH-0006-5T	6SO-0006-5T	6SC-0006-5T

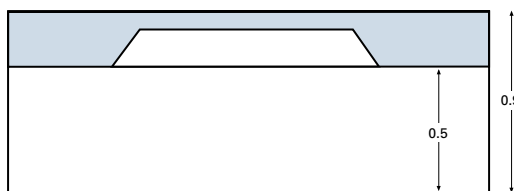
SPECIFICATIONS

Parameter	Minimum	Typical	Maximum	Units	Notes
Electrical & Environmental					
Excitation (In)		5	15	V	Maximum: 3 mA
Impedance	4000	5000	6000	Ω	Optional: 3,500 +/- 500
Operating Temperature	-40		150	$^{\circ}\text{C}$	Sentium [®] technology
Storage Temperature	-55		160	$^{\circ}\text{C}$	
Performance					
Offset	-10	0	10	mV/V	Zero pressure; @25 $^{\circ}\text{C}$
Non-linearity	-0.15	0	0.15	% FSO	BFSL; @25 $^{\circ}\text{C}$
Non-linearity (>5000 psi)	-0.35	0	0.35	% FSO	BFSL; @25 $^{\circ}\text{C}$
Pressure Hysteresis	-0.05	0	0.05	% FSO	@25 $^{\circ}\text{C}$
Temp Coeff – Zero	-25	0	25	$\mu\text{V}/\text{V}/^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$
Temp Coeff – Resistance	2300	2800	3300	PPM/ $^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$
Temp Coeff – Sensitivity	-1500	-2200	-2500	PPM/ $^{\circ}\text{C}$	-40 $^{\circ}\text{C}$ to 150 $^{\circ}\text{C}$
Thermal Hysteresis	-0.1	0	0.1	% FSO	Zero pressure
Long-Term Stability	-0.1	0	0.1	% FSO	
Burst Pressure	3X				Full scale pressure
Full-Scale Output (@ 5 volts excitation)					
1000 psi (68.9 bar; 6,895 KPa)	105	125	145	mV	Other outputs available upon request
3,000 psi (207 bar; 20,684 KPa)	150	180	210	mV	
5,000 psi (345 bar; 34,474 KPa)	165	200	235	mV	
10,000 psi (689 bar; 68,948 KPa)	250	300	350	mV	

DIMENSIONS (millimeters, post-cut)

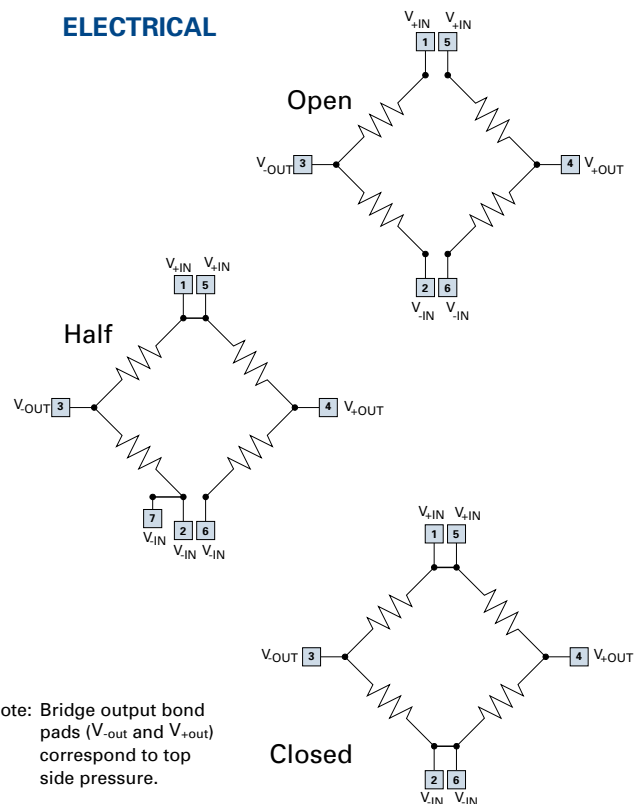


Standard Bond Pad Metallization = Aluminum



Other constraints available

ELECTRICAL



Note: Bridge output bond pads (V_{-out} and V_{+out}) correspond to top side pressure.