



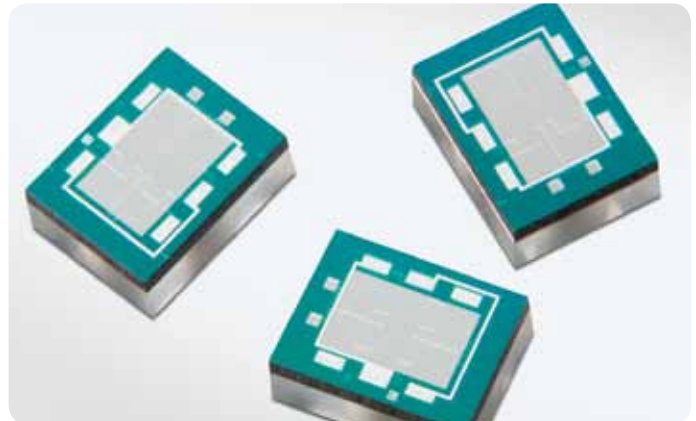
The **3000 Series** is ideal for high-volume, low-pressure OEM applications.

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, which was 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, tests, sells and services die and packaged products from a state-of-the-art facility near Salt Lake City, Utah.



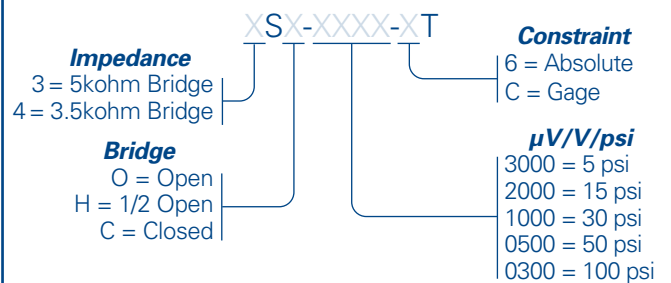
FEATURES

| | |
|-------------|---|
| Range | 5 to 100 psi (0.34 to 6.9 bar; 34.5 to 689 KPa) |
| Type | Absolute, gage, differential and vacuum |
| Media | Clean, dry air and non-corrosive gases |
| Shipping | Wafers on tape |
| 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 |

3000 Series Part Number Configurator



Example: 3SO-3000-CT offers 5kohm Impedance, Open Bridge, 5 psi and Gage Constraint

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

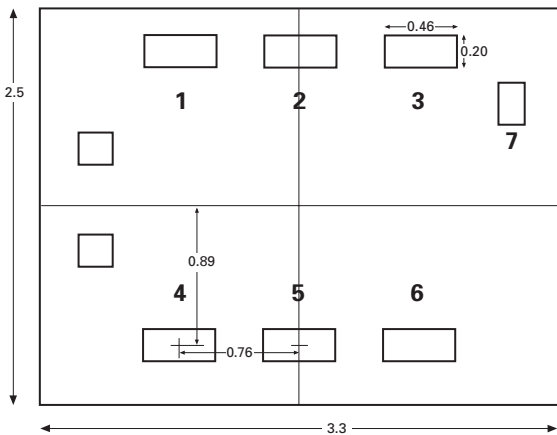
3000 Series Standard Part Numbers

| | | |
|-------------|-------------|-------------|
| 3SO-3000-6T | 3SC-3000-6T | 4SH-3000-6T |
| 3SO-2000-6T | 3SC-2000-6T | 4SH-2000-6T |
| 3SO-1000-6T | 3SC-1000-6T | 4SH-1000-6T |
| 3SO-0500-6T | 3SC-0500-6T | 4SH-0500-6T |
| 3SO-0300-6T | 3SC-0300-6T | 4SH-0300-6T |
| 3SO-3000-CT | 3SC-3000-CT | 4SH-3000-CT |
| 3SO-2000-CT | 3SC-2000-CT | 4SH-2000-CT |
| 3SO-1000-CT | 3SC-1000-CT | 4SH-1000-CT |
| 3SO-0500-CT | 3SC-0500-CT | 4SH-0500-CT |
| 3SO-0300-CT | 3SC-0300-CT | 4SH-0300-CT |
| 3SH-3000-6T | 4SO-3000-6T | 4SC-3000-6T |
| 3SH-2000-6T | 4SO-2000-6T | 4SC-2000-6T |
| 3SH-1000-6T | 4SO-1000-6T | 4SC-1000-6T |
| 3SH-0500-6T | 4SO-0500-6T | 4SC-0500-6T |
| 3SH-0300-6T | 4SO-0300-6T | 4SC-0300-6T |
| 3SH-3000-CT | 4SO-3000-CT | 4SC-3000-CT |
| 3SH-2000-CT | 4SO-2000-CT | 4SC-2000-CT |
| 3SH-1000-CT | 4SO-1000-CT | 4SC-1000-CT |
| 3SH-0500-CT | 4SO-0500-CT | 4SC-0500-CT |
| 3SH-0300-CT | 4SO-0300-CT | 4SC-0300-CT |

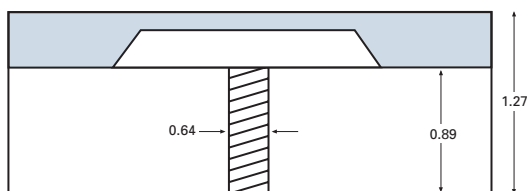
SPECIFICATIONS

| Parameter | Minimum | Typical | Maximum | Units | Notes |
|---------------------------------------|---------|---------|---------|---|--|
| Electrical & Environmental | | | | | |
| Excitation | | 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; gage only; @25 $^{\circ}\text{C}$ |
| Non-linearity | -0.2 | 0 | 0.2 | % FSO | Best Fit Straight Line; @25 $^{\circ}\text{C}$ |
| Pressure Hysteresis | -0.1 | 0 | 0.1 | % 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 | -0.2 | 0 | 0.2 | % FSO | Zero pressure |
| Long-Term Stability | -0.2 | 0 | 0.2 | % FSO | |
| Burst Pressure | 3X | | | | Full scale pressure |
| Full-Scale Output (@ 5 volts) | | | | | |
| 5 psi (.34 bar; 34.5 KPa) | 60 | 75 | 90 | mV | Other outputs available upon request |
| 15 psi (1 bar; 103 KPa) | 125 | 150 | 175 | mV | |
| 30 psi (2.1 bar; 207 KPa) | 120 | 150 | 180 | mV | |
| 50 psi (3.4 bar; 345 KPa) | 100 | 125 | 150 | mV | |
| 100 psi (6.9 bar; 689 KPa) | 125 | 150 | 175 | mV | |

DIMENSIONS (millimeters, post-cut)



Standard Bond Pad Metallization = Aluminum



Absolute also; other constraints available

ELECTRICAL

