

Semiconductor Strain Gages have large temperature coefficients of resistance making single gage strain measurements difficult unless used at a constant temperature. For this reason, gages are predominantly used in a half bridge or full bridge circuits and carefully matched for slope and intercept.

PART NUMBER DETAILS

SS-060-033-500P-S2

SS designates Semiconductor Strain Gage

060 designates that the gage is 0.060 long.

033 designates the gage has an active area in the center of 0.033.

500P designates 500 ohms nominally at room temperature and it is P-doped.

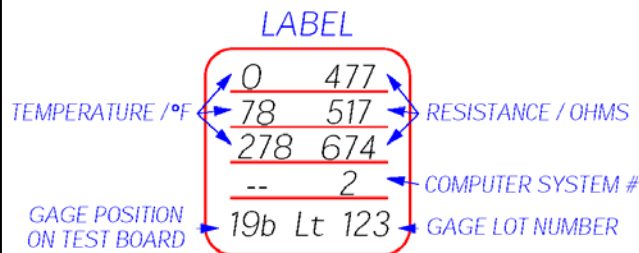
S2 indicates these two gages are resistance versus temperature matched to each other.

STANDARD PACKAGING

Gages are packaged in clear plastic boxes measuring approximately one inch square.

Each clear box lid is labeled with information about the gage.

Gages are package one gage to a clear box with each box having its own label. Matched sets will be joined together with clear plastic tape on the bottom of the boxes.



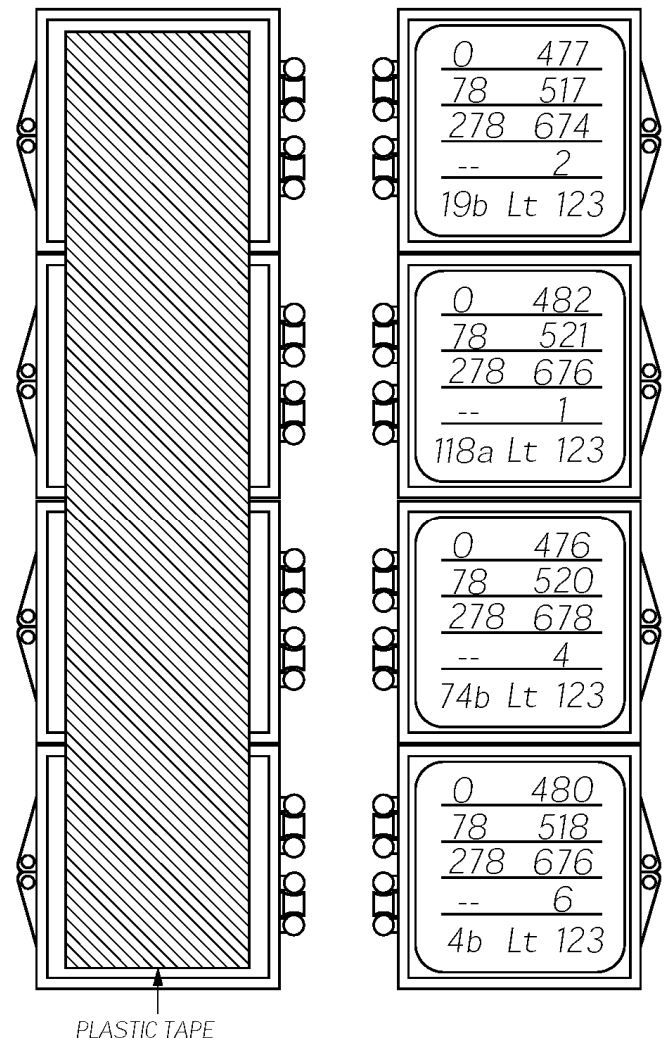
- Temperature $^{\circ}\text{F}$ is noted along with the Corresponding Resistance in Ohms Ω .

0°F	477
78°F	517
278°F	674
- Gage lot number is marked as Lt.
- Computer System number used to measure the resistance over temperature.
- Gage Position Number identifies the position of the gage on the board in the temperature chamber.

Note:

The computer system also measures and records reverse current and TCR (Thermal Coefficient of Resistance). This data is used to detect non- performing gages allowing them to be removed from production.

See Reverse Side for Additional Information



MATCHED GAGE INFORMATION

There are many uses for semiconductor strain gages and to accommodate these applications, Micron offers a number of matching options.

SS-060-033-500P-xx

S1 is a single gage, tested and with data.

S2 is a thermally matched set of two gages, tested with data.

S4 is a thermally matched set of four gages, tested with data.

We recommend a spare gage be purchased in the event that a gage is damaged during installation.

An **S3** or **S5** at the end of the part number should be designated for this request

For double bridges requiring eight gages you would specify an **S8** at the end of the gage number or **S9** for a Spare.

STANDARD MATCHING

Standard Matching is at Three Temperatures and adhere to the following tolerances.

0°F	+/- 3 ohms
78°F	+/- 2 ohms
278°F	+/- 2 ohms

CUSTOM MATCHING

In general, tighter matching permits better performance especially with respect to bridge temperature compensation.

When gages are to be used below 0°F, additional testing is required.

Micron does offer special matching upon request. (**Examples Below**)

500 Ohms Matched

0°F	+/- 2 ohms
78°F	+/- 1 ohm
278°F	+/- 1 ohm

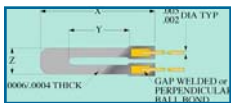
1000 Ohms Matched

-65°F	+/- 6 ohms
0°F	+/- 6 ohms
78°F	+/- 4 ohms
278°F	+/- 4 ohms

Since the options for matching and temperature are numerous, please consult with our engineers who will advise if more accurate matching is required for your application. 1-800-638-3770

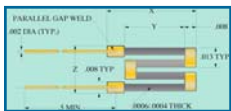
GAGE DESIGNS


"Bar" Shaped Gage - Lead Wires Exit the ends of each side of gage.



"U" Shaped Gage - Lead Wires Exit the same side of gage.

These gages are also useful since the length is less and for the same length and resistivity, we can offer twice the resistance.



"M" Shaped Gage - Lead Wires Exit the same side of gage.

Gages are available between 10 ohms and 10,000 ohms.

Special gages are available for up to 800°F operation.