

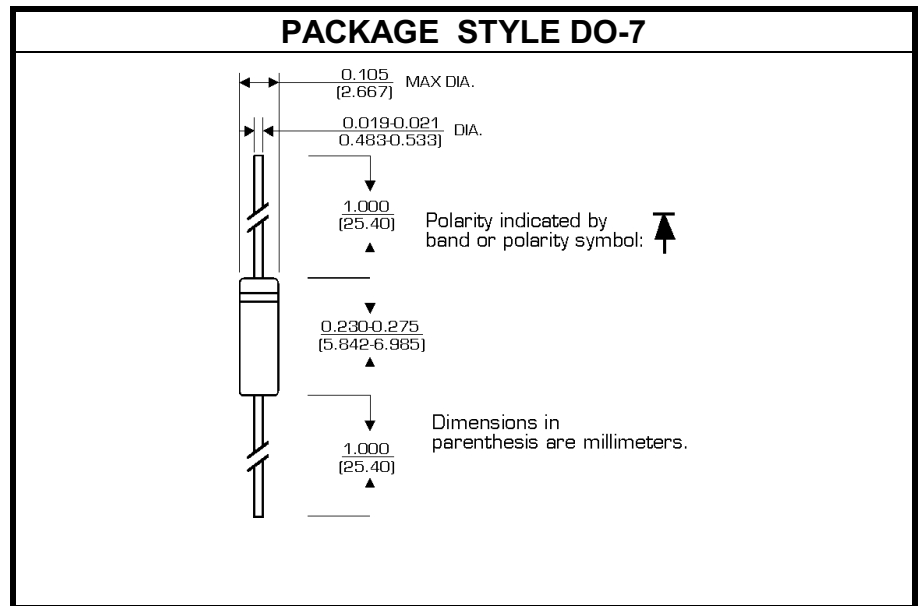
# SILICON ZENER DIODE

## DESCRIPTION:

The **1N938** is a 9.0 V Silicon Temperature Compensate Zener Diode Designed for General Purpose Voltage Reference Applications.

## MAXIMUM RATINGS

|                         |                                 |
|-------------------------|---------------------------------|
| <b>I<sub>F</sub></b>    | 7.5 mA                          |
| <b>V<sub>Z</sub></b>    | 9.0 V                           |
| <b>P<sub>DISS</sub></b> | 500 mW @ T <sub>A</sub> = 25 °C |
| <b>T<sub>J</sub></b>    | -65 °C to +175 °C               |
| <b>T<sub>STG</sub></b>  | -65 °C to +175 °C               |



## CHARACTERISTICS T<sub>C</sub> = 25 °C

| SYMBOL                 | TEST CONDITIONS  | MINIMUM | TYPICAL | MAXIMUM | UNITS       |
|------------------------|--|---------|---------|---------|-------------|
| <b>V<sub>Z</sub></b>   | I <sub>Z</sub> = 7.5 mA                                      | 8.55    |         | 9.45    | <b>V</b>    |
| <b>ΔV<sub>ZT</sub></b> | I <sub>ZT</sub> = 7.5 mA<br>T <sub>A</sub> = -0° C to +75 °C |         |         | 6.0     | <b>mV</b>   |
| <b>V<sub>ZT</sub></b>  | I <sub>ZT</sub> = 7.5 mA/0.75 mA (AC RMS)                    |         |         | 20      | <b>Ohms</b> |
| <b>α<sub>VZ</sub></b>  | I <sub>ZT</sub> = 7.5 mA                                     | 0.001   |         |         | <b>%/°C</b> |