

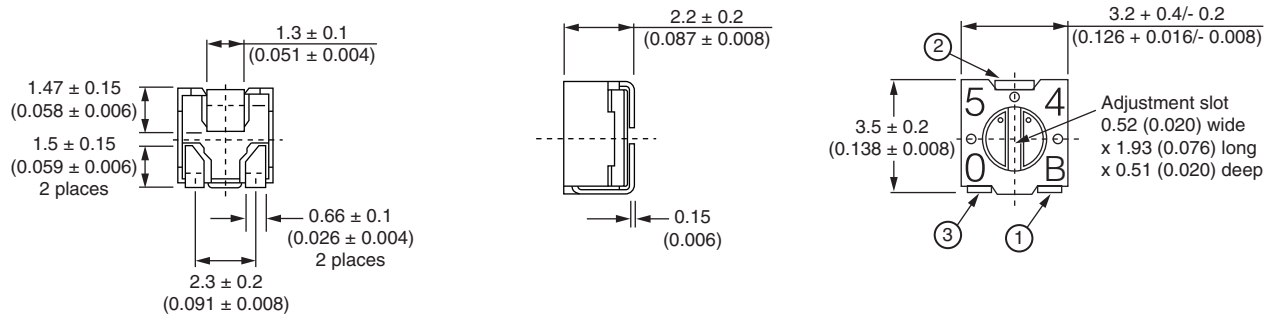
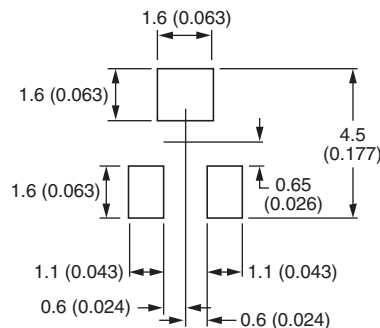
# 3 mm Square Surface Mount Miniature Trimmer Single-Turn Cermet Sealed

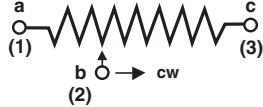

**FEATURES**

- 0.125 W at 70 °C
- Small size for optimum packaging density
- Suitable for both manual and automatic operations
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

**DIMENSIONS** in millimeters (inches)  $\pm 0.25$  mm ( $\pm 0.010$ " )

**TS3YJ**

**RECOMMENDED SOLDERING AREAS**


| <b>ELECTRICAL SPECIFICATIONS</b>             |                                                                                    |
|----------------------------------------------|------------------------------------------------------------------------------------|
| Resistive element                            | Cermet                                                                             |
| Electrical travel                            | 220°                                                                               |
| Resistance range                             | 10 Ω to 2 MΩ                                                                       |
| Stocked range                                | 1 kΩ to 100 kΩ                                                                     |
| Standard series                              | 1 - 2 - 5                                                                          |
| Tolerance standard                           | ± 20 %                                                                             |
| Circuit diagram                              |  |
| Power rating                                 | 0.125 W at 70 °C                                                                   |
| Temperature coefficient (max.)               | ≥ 100 Ω ± 150 ppm/°C / > 100 Ω ± 100 ppm/°C                                        |
| Limiting element voltage (max.)              | 200 V                                                                              |
| Contact resistance variation                 | 3 % or 3 Ω                                                                         |
| End resistance                               | 1 % or 3 Ω                                                                         |
| Dielectric strength (RMS)                    | 500 V (sea level)                                                                  |
| Insulation resistance (500 V <sub>DC</sub> ) | 100 MΩ                                                                             |

| <b>MECHANICAL SPECIFICATIONS</b> |      |
|----------------------------------|------|
| Mechanical travel                | 250° |
| Operating torque (max. Ncm)      | 0.5  |
| End stop torque (min. Ncm)       | 2    |
| Unit weight (max. g)             | 0.1  |
| Mechanical life (cycles)         | 50   |

**Note**

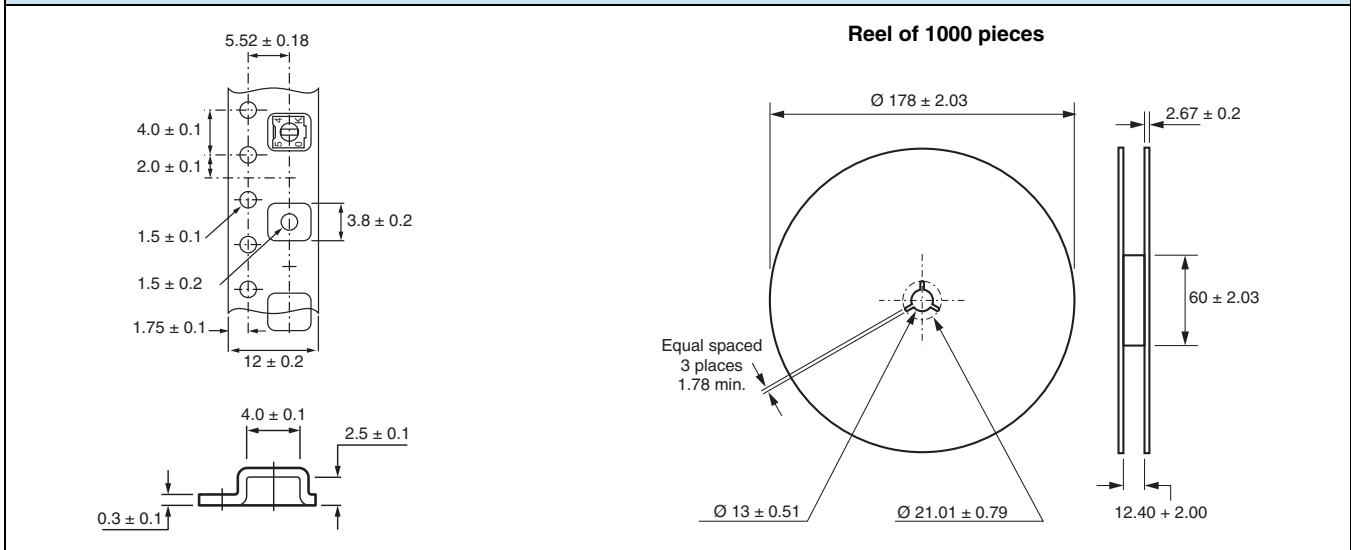
- Nothing stated herein shall be construed as a guarantee of quality or durability.

| <b>ENVIRONMENTAL SPECIFICATIONS</b> |                       |
|-------------------------------------|-----------------------|
| Temperature range                   | -55 °C to +125 °C     |
| Sealing                             | Sealed container IP67 |
| MSL level                           | 1                     |

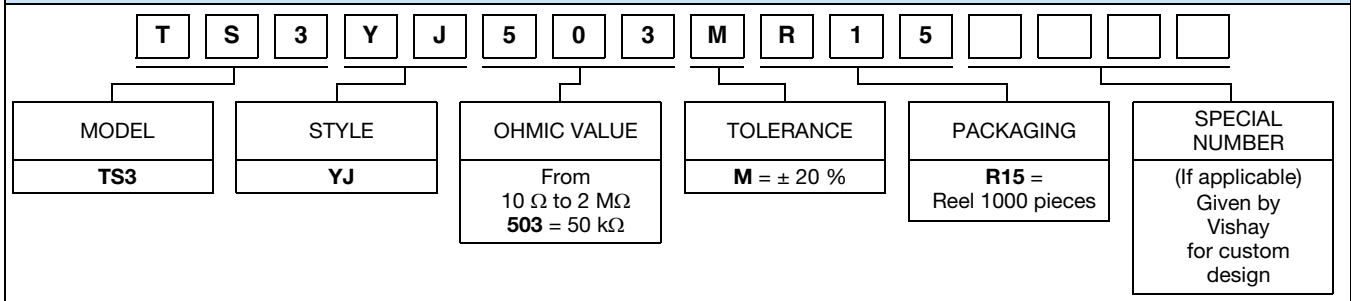
| <b>SOLDERING RECOMMENDATIONS</b>                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------|
| Recommended reflow profile 2, see Application Note <a href="http://www.vishay.com/doc?52029">www.vishay.com/doc?52029</a> |

| <b>STANDARD RESISTANCE ELEMENT DATA</b> |                   |                 |
|-----------------------------------------|-------------------|-----------------|
| RESISTANCE                              | PART MARKING CODE | RESISTANCE CODE |
| 10                                      | A1                | 100             |
| 20                                      | 21                | 200             |
| 50                                      | 51                | 500             |
| 100                                     | A2                | 101             |
| 200                                     | 22                | 201             |
| 500                                     | 52                | 501             |
| 1K                                      | A3                | 102             |
| 2K                                      | 23                | 202             |
| 5K                                      | 53                | 502             |
| 10K                                     | A4                | 103             |
| 20K                                     | 24                | 203             |
| 50K                                     | 54                | 503             |
| 100K                                    | A5                | 104             |
| 200K                                    | 25                | 204             |
| 500K                                    | 55                | 504             |
| 1M                                      | A6                | 105             |
| 2M                                      | 26                | 205             |

**PACKAGING**



**ORDERING INFORMATION (Part Number)**



**DESCRIPTION (for information only)**

|            |           |            |             |         |           |             |
|------------|-----------|------------|-------------|---------|-----------|-------------|
| <b>TS3</b> | <b>YJ</b> | <b>50K</b> | <b>20 %</b> |         | <b>TR</b> | <b>e3</b>   |
| MODEL      | STYLE     | VALUE      | TOLERANCE   | SPECIAL | PACKAGING | LEAD FINISH |



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