

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



RoHS
COMPLIANT

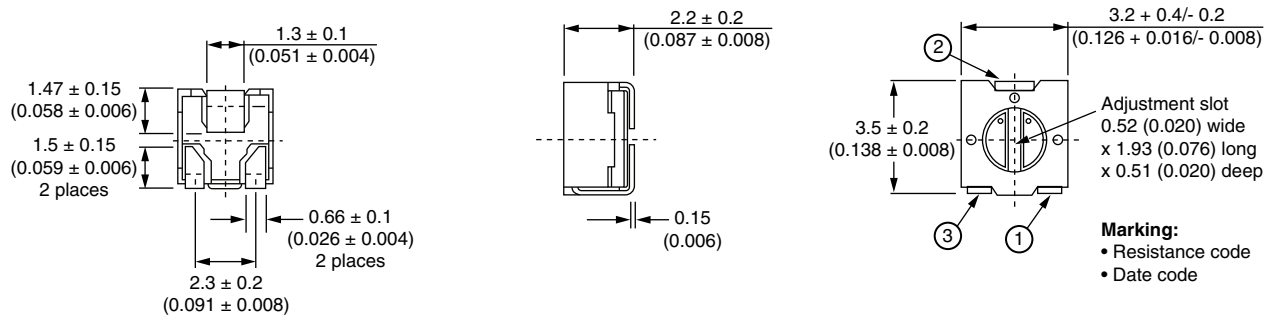
DESIGN SUPPORT TOOLS

[click logo to get started](#)

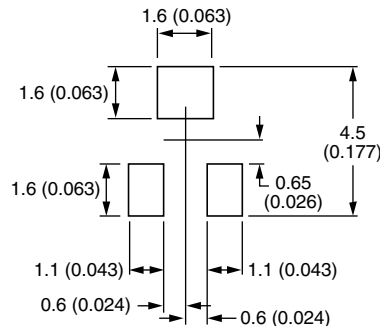
3D
Models
Available

DIMENSIONS in millimeters (inches) ± 0.25 mm (± 0.010")

TS3YJ



RECOMMENDED SOLDERING AREAS



| ELECTRICAL SPECIFICATIONS | |
|----------------------------------------------|---------------------------------------------|
| 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 _{DC}) | 100 MΩ |

| MECHANICAL SPECIFICATIONS | |
|----------------------------------|------|
| 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 |

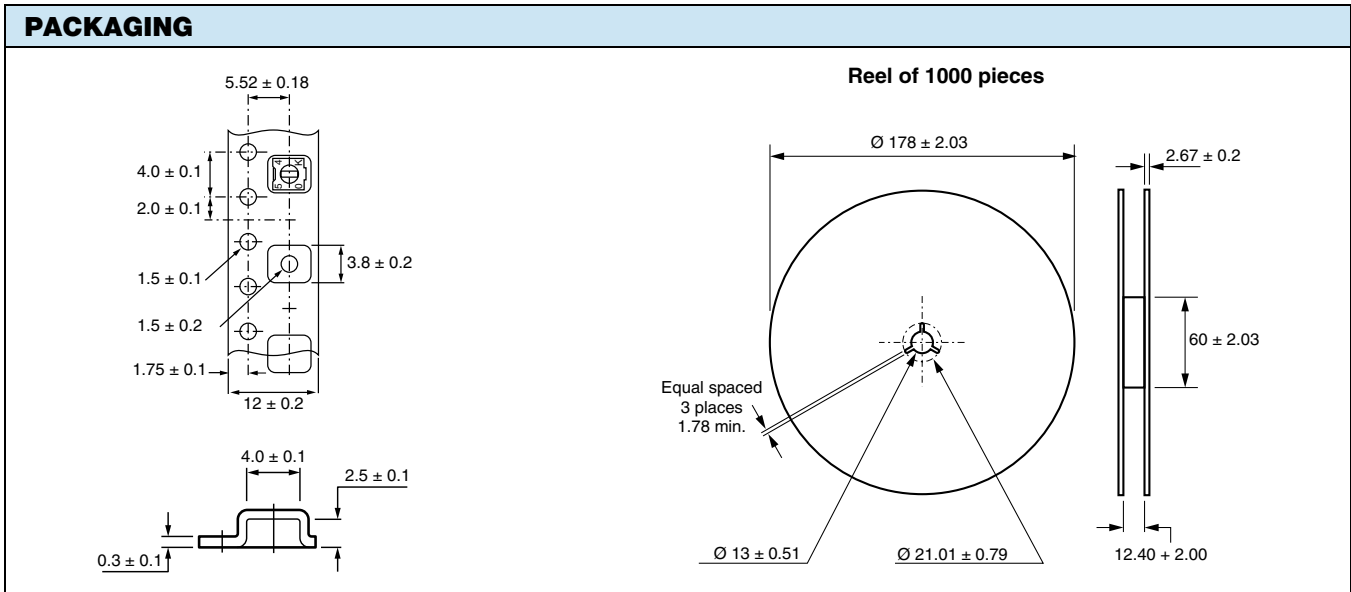
Note

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

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

| SOLEDERING RECOMMENDATIONS |
|---------------------------------------------------------------------------------------------------------------------------|
| Recommended reflow profile 2, see Application Note www.vishay.com/doc?52029 |

| STANDARD RESISTANCE ELEMENT DATA | | |
|-----------------------------------------|-------------------|-----------------|
| 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 |



ORDERING INFORMATION (part number)

| | | | | | | | | | | | | | | | |
|-------|---|-------|---|---|----------------------------------|---|---|------------|---|------------------------|---|--|---------------------------------------------------|--|--|
| T | S | 3 | Y | J | 5 | 0 | 3 | M | R | 1 | 5 | | | | |
| MODEL | | STYLE | | | OHMIC VALUE | | | TOLERANCE | | PACKAGING | | | SPECIAL NUMBER | | |
| TS3 | | YJ | | | From 10 Ω to 2 MΩ 503 = 50 kΩ | | | M = ± 20 % | | R15 = reel 1000 pieces | | | (if applicable) given by Vishay for custom design | | |

DESCRIPTION (for information only)

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

RELATED DOCUMENTS

| | |
|-------------------------------------------------------------------|------------------------------------------------------------------------|
| APPLICATION NOTES | |
| Potentiometers and Trimmers | www.vishay.com/doc?51001 |
| Guidelines for Vishay Sfernice Resistive and Inductive Components | www.vishay.com/doc?52029 |



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