

## 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)

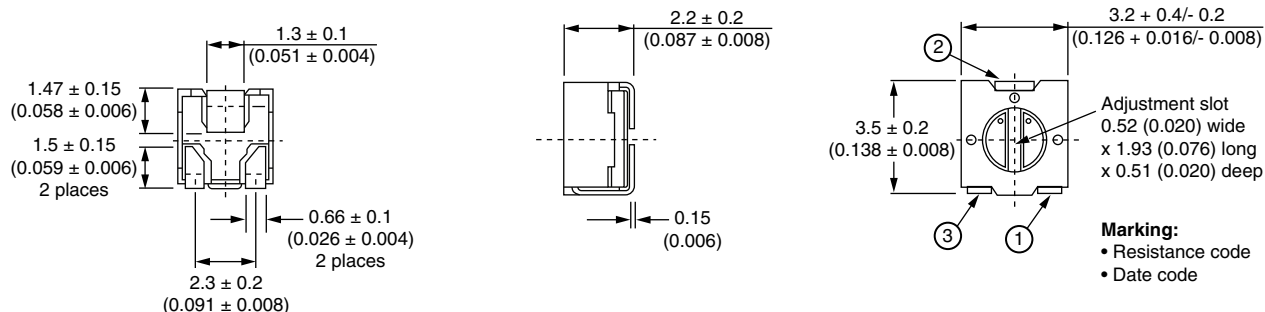

**RoHS**  
COMPLIANT

### DESIGN SUPPORT TOOLS

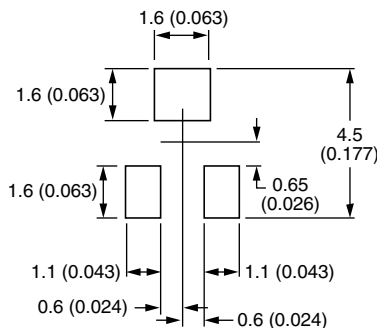
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**3D**  
Models  
Available

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

#### TS3YJ



### RECOMMENDED SOLDERING AREAS



**ELECTRICAL SPECIFICATIONS**

Resistive element	Cermet
Electrical travel	220°
Resistance range	10 $\Omega$ to 2 M $\Omega$
Stocked range	1 k $\Omega$ to 100 k $\Omega$
Standard series	1 - 2 - 5
Tolerance standard	$\pm 20\%$
Circuit diagram	
Power rating	0.125 W at 70 °C
Temperature coefficient (max.)	$\leq 100\ \Omega \pm 150\ \text{ppm}/^\circ\text{C}$ / $> 100\ \Omega \pm 100\ \text{ppm}/^\circ\text{C}$
Limiting element voltage (max.)	200 V
Contact resistance variation	3 % or 3 $\Omega$
End resistance	1 % or 3 $\Omega$
Dielectric strength (RMS)	500 V (sea level)
Insulation resistance (500 V <sub>DC</sub> )	100 M $\Omega$

**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**

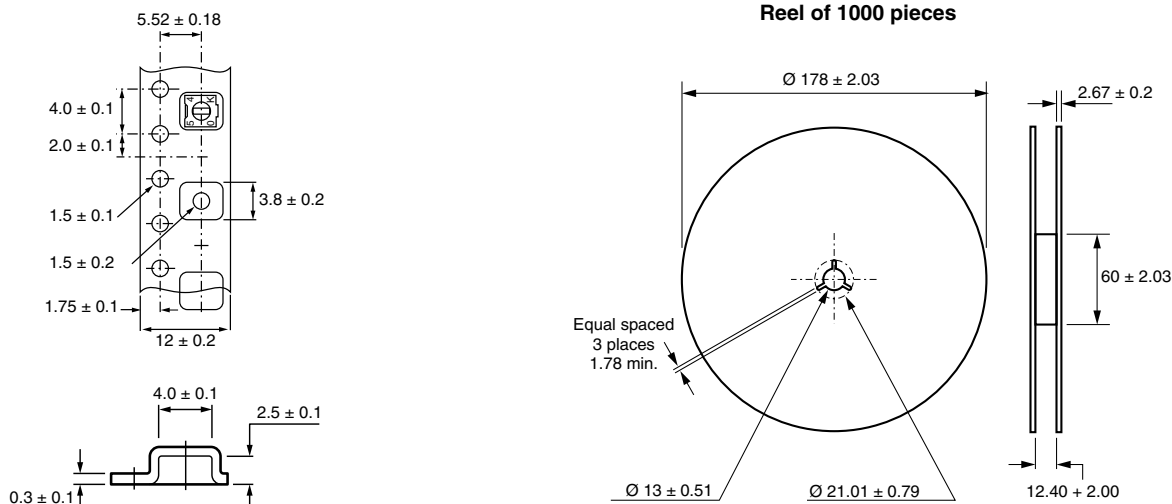
Temperature range	-55 °C to +125 °C
Sealing	Sealed container IP67
MSL level	1

**SOLEDERING RECOMMENDATIONS**

Recommended reflow profile 2, see Application Note [www.vishay.com/doc?52029](http://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

**PACKAGING**

**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 $\Omega$ to 2 M $\Omega$ 503 = 50 k $\Omega$			M = $\pm 20\%$		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	<a href="http://www.vishay.com/doc?51001">www.vishay.com/doc?51001</a>
Guidelines for Vishay Sfernice Resistive and Inductive Components	<a href="http://www.vishay.com/doc?52029">www.vishay.com/doc?52029</a>



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