

# Cermet Trimmers, Surface Mount, 4.0 mm Square, Single Turn, Industrial Grade



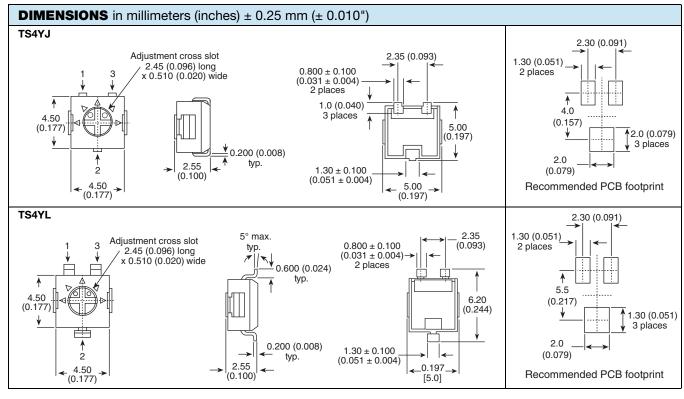
#### **FEATURES**

- 0.25 W at 70 °C
- · Fully sealed to withstand board washing



J RoHS vacuum compliant

- Compatible with popular pick-and-place equipment
- · J-hook and gull-wing configurations
- Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>



ELECTRICAL SPECIFICATIONS				
Resistance range	10 $\Omega$ to 2 M $\Omega$ (see Standard Resistance table)			
Tolerance	± 20 % standard			
End resistance	1 % or 2 $\Omega$ maximum, whichever is greater			
Temperature coefficient	± 100 ppm/°C			
Power rating	0.25 W at +70 °C (300 V maximum), 0 W at +125 °C			
Circuit diagram	Wiper			
Contact resistance variation (CRV)	1 % or 3 Ω			
Resolution	Infinite			
Insulation resistance (500 V <sub>DC</sub> )	100 MΩ minimum			
Dielectric strength (RMS)	Sea level 500 V <sub>AC</sub> (1 minute)			
Adjustment angle	210° nominal			



# Vishay Sfernice

MECHANICAL SPECIFICATIONS			
Mechanical angle	240° nominal		
Operating torque (typical)	1.8 Ncm		
End stop torque (typical)	3.0 Ncm		
Weight	Approximately 0.01 oz.		
Wiper	Positioned at approx. 50 %		

ENVIRONMENTAL SPECIFICATIONS				
Temperature range	-55 °C to +125 °C			
MSL level	1			

PERFORMANCES						
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS				
12313	CONDITIONS	ΔR <sub>T</sub> /R <sub>T</sub> (%)	ΔV <sub>1-2</sub> /V <sub>1-3</sub> (%)	OTHER		
Vibration	20 <i>g</i> 's	±1%	± 1 %	-		
Shock	100 <i>g</i> 's	± 1 %	± 1 %	-		
Electrical endurance	At 70 °C rated power 1000 h	± 3 %	-	-		
Mechanical endurance	100 cycles	± 3 %	-	-		
Change of temperature	5 cycles	± 2 %	± 1 %	-		
Humidity	90 % to 98 % relative humidity 10 cycles, 240 h	± 2 % - Insulation		Insulation resistance:10 M $\Omega$		

#### Note

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

#### **SOLDERING RECOMMENDATIONS**

Recommended reflow profile 2, see Application Note <a href="https://www.vishay.com/doc?52029">www.vishay.com/doc?52029</a>

TWO DIGIT DATE CODE							
YEAR							
1990	Α		2000	М	20	10	Α
1991	В		2001	N	2011		В
1992	С		2002	Р	2012		С
1993	D		2003	R	20	13	D
1994	Е		2004	S	20	2014 E	
1995	F		2005	Т	20	15	F
1996	Н		2006	U	20	16	Н
1997	7		2007	V	20	17	J
1998	K		2008	W	20	18	K
1999	L		2009	Х	2019		L
MONTH							
Januar	у	1		July		7	
Februa	ry	2		August		8	
March	1	3		September		9	
April		4		October		0	
May		5		November		N	
June		6		December			D

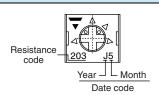
STANDARD RESISTANCE ELEMENT DATA					
RESISTANCE $\Omega$	RESISTANCE CODE	TYPICAL TCR (ppm/°C)			
10	100				
20	200				
50	500				
100	101				
200	201				
500	501				
1K	102				
2K	202				
5K	502	± 100			
10K	103				
20K	203				
50K	503				
100K	104				
200K	204				
500K	504				
1M	105				
2M	205				

#### Note

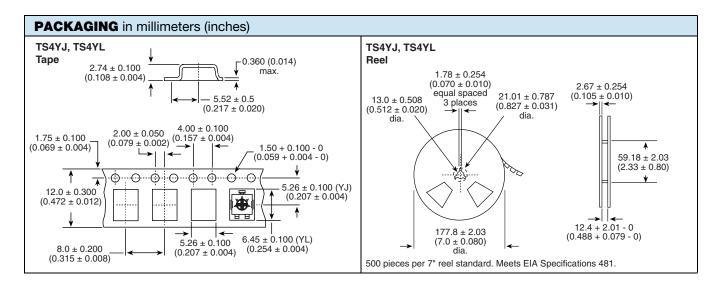
Special resistance available

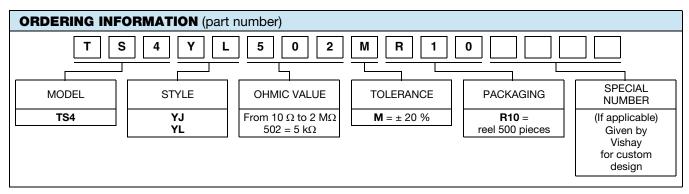
## Vishay Sfernice

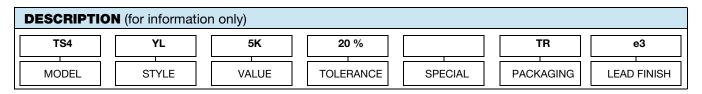




- Manufacturers code
- Resistance code
- Date code







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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Vishay

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Revision: 02-Oct-12 Document Number: 91000

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