

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



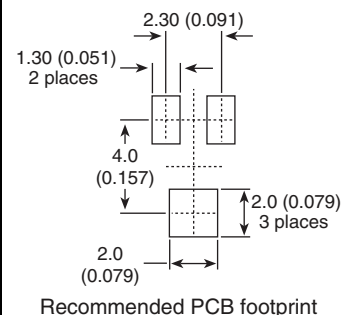
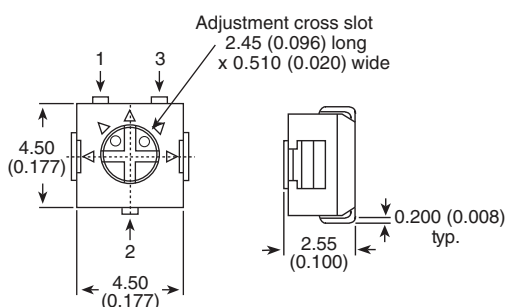
## FEATURES

- 0.25 W at 70 °C
- Fully sealed to withstand board washing
- Compatible with popular vacuum pick-and-place equipment
- J-hook and gull-wing configurations
- Compliant to RoHS Directive 2002/95/EC

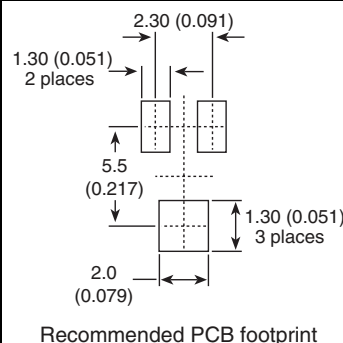
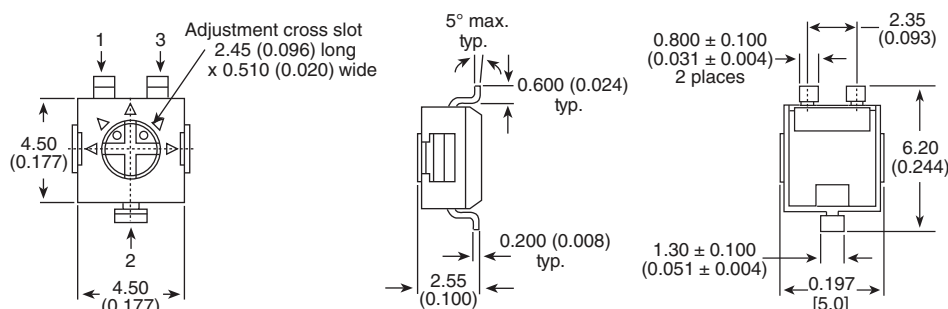

**RoHS**  
COMPLIANT

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

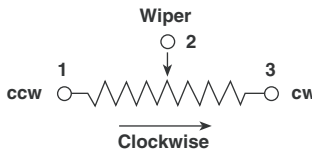
### TS4YJ



### TS4YL



## ELECTRICAL SPECIFICATIONS

Resistive Range	10 $\Omega$ to 2 M $\Omega$ (see Standard Resistance table)
Tolerance	$\pm 20$ % standard
End Resistance	1 % or 2 $\Omega$ maximum, whichever is greater
Temperature Coefficient	$\pm 100$ ppm/°C
Power Rating	(300 V maximum) 0.25 W at + 70 °C, 0 W at + 125 °C
Circuit Diagram	
Contact Resistance Variation (CRV)	1 % or 3 $\Omega$
Resolution	Infinite
Insulation Resistance (500 V <sub>DC</sub> )	100 M $\Omega$ minimum
Dielectric Strength (RMS)	Sea level 500 V <sub>AC</sub> (1 minute)
Adjustment Angle	210° nominal

**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		
		$\Delta R_T/R_T$ (%)	$\Delta V_{1-2}/V_{1-3}$ (%)	OTHER
Vibration	20 g's	± 1 %	± 1 %	-
Shock	100 g'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 resistance:10 MΩ

**SOLDERING RECOMMENDATIONS**

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

**TWO DIGIT DATE CODE**

YEAR					
1990	A	2000	M	2010	A
1991	B	2001	N	2011	B
1992	C	2002	P	2012	C
1993	D	2003	R	2013	D
1994	E	2004	S	2014	E
1995	F	2005	T	2015	F
1996	H	2006	U	2016	H
1997	J	2007	V	2017	J
1998	K	2008	W	2018	K
1999	L	2009	X	2019	L
MONTH					
January	1	July	7		
February	2	August	8		
March	3	September	9		
April	4	October	O		
May	5	November	N		
June	6	December	D		

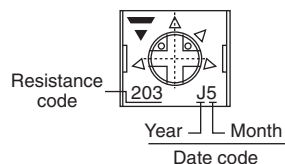
**STANDARD RESISTANCE ELEMENT DATA**

RESISTANCE Ω	RESISTANCE CODE
10	100
20	200
50	500
100	101
200	201
500	501
1K	102
2K	202
5K	502
10K	103
20K	203
50K	503
100K	104
200K	204
500K	504
1M	105
2M	205

**Note**

- Special resistance available

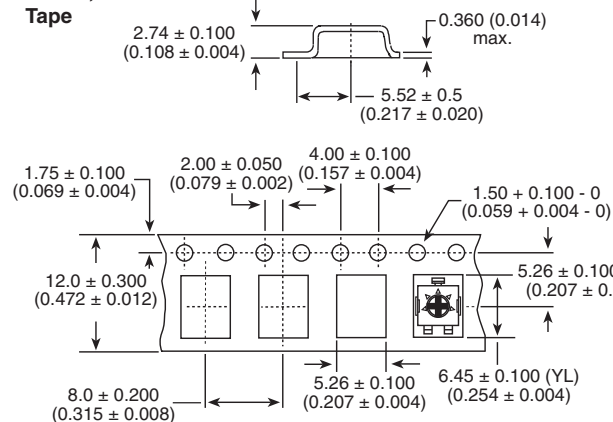
## PART MARKING



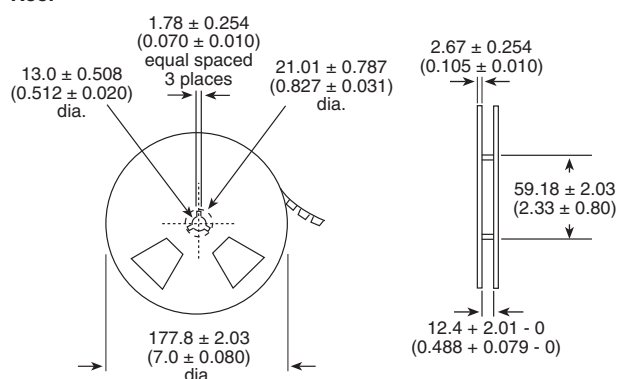
- Manufacturers code
- Resistance code
- Date code

## PACKAGING in millimeters (inches)

### TS4YJ, TS4YL Tape



### TS4YJ, TS4YL Reel



500 pieces per 7" reel standard. Meets EIA Specifications 481.

## ORDERING INFORMATION (Part Number)

T	S	4	Y	L	5	0	2	M	R	1	0				
MODEL		STYLE		OHMIC VALUE			TOLERANCE		PACKAGING		SPECIAL NUMBER				
TS4		YJ YL		From 10 Ω to 2 MΩ 502 = 5 kΩ			M = ± 20 %		R10 = Reel 500 pieces		(If applicable) Given by Vishay for custom design				

## DESCRIPTION (for information only)

TS4	YL	5K	20 %		TR	e3
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD FINISH



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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