

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



DESIGN SUPPORT TOOLS

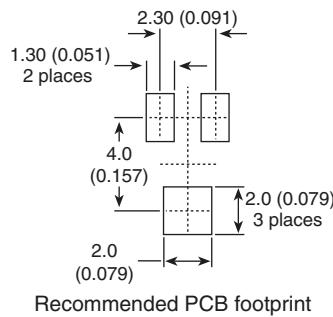
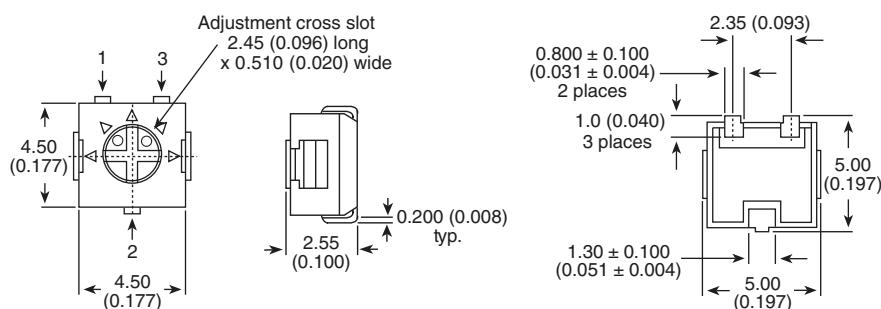

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FEATURES

- 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
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

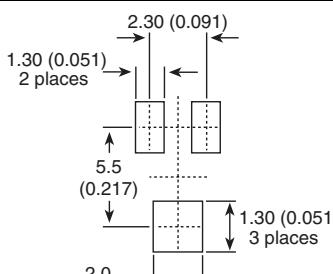
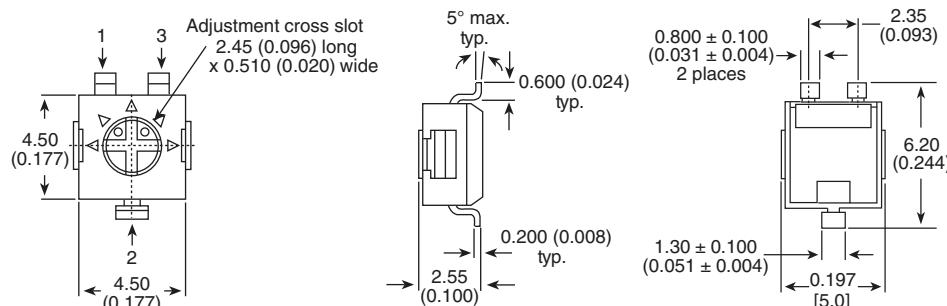
DIMENSIONS in millimeters (inches) ± 0.25 mm (± 0.010 ')

TS4YJ



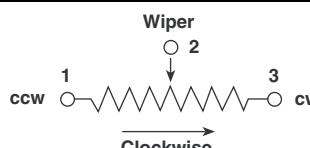
Recommended PCB footprint

TS4YL



Recommended PCB footprint

ELECTRICAL SPECIFICATIONS

Resistance range	10 Ω to 2 MΩ (see Standard Resistance table)
Tolerance	± 20 % standard
End resistance	1 % or 2 Ω 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	
Contact resistance variation (CRV)	1 % or 3 Ω
Resolution	Infinite
Insulation resistance (500 V _{DC})	100 MΩ minimum
Dielectric strength (RMS)	Sea level 500 V _{AC} (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

Note

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

SOLDERING RECOMMENDATIONS

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

TWO DIGIT DATE CODE

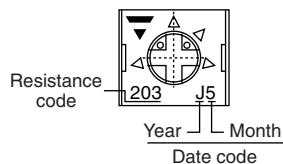
YEAR					
1990	A	2000	M	2010	A
1991	B	2001	N	2011	B
1992	C	2002	P	2012	C
1993	D	2003	R	2013	D
1994	E	2004	S	2014	E
1995	F	2005	T	2015	F
1996	H	2006	U	2016	H
1997	J	2007	V	2017	J
1998	K	2008	W	2018	K
1999	L	2009	X	2019	L
MONTH					
January	1	July	7		
February	2	August	8		
March	3	September	9		
April	4	October	0		
May	5	November	N		
June	6	December	D		

STANDARD RESISTANCE ELEMENT DATA

RESISTANCE Ω	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	

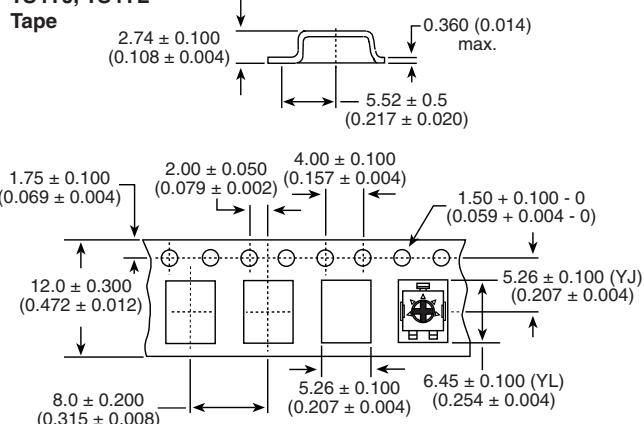
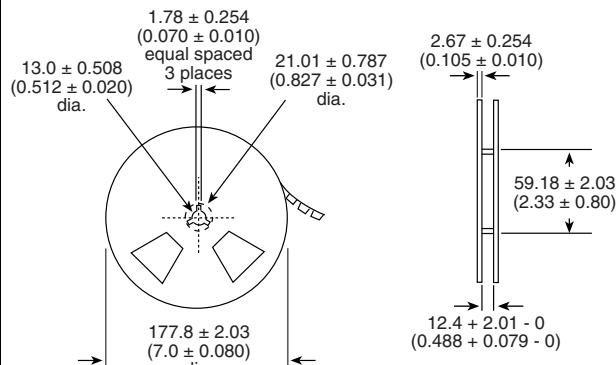
Note

- Special resistance available

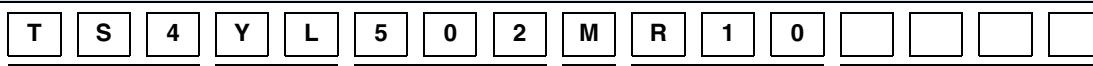
PART MARKING


- Manufacturers code
- Resistance code
- Date code

PACKAGING in millimeters (inches)

TS4YJ, TS4YL

TS4YJ, TS4YL
Reel


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

ORDERING INFORMATION (part number)

MODEL
TS4
STYLE
YJ
YL
OHMIC VALUE
From 10 Ω to 2 MΩ
502 = 5 kΩ
TOLERANCE
M = ± 20 %
PACKAGING
R10 =
reel 500 pieces
SPECIAL NUMBER
 (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

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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