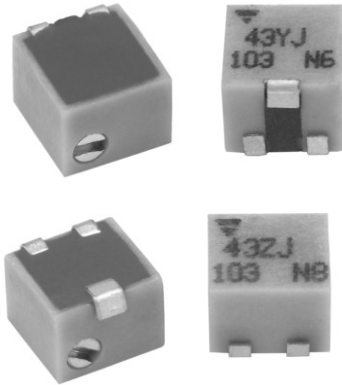


Surface Mount Cermet Trimmers Multi-turn Cermet Sealed, Industrial Grade



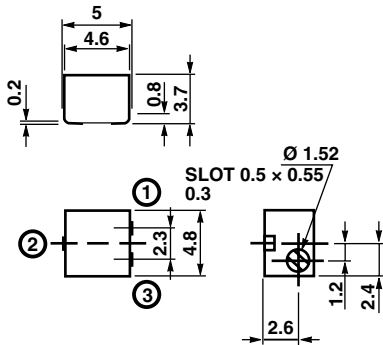
FEATURES

- Sealed to withstand board wash processing
- Pick and place centering design, with flush adjustment
- 4.0 mm design meets EIA SMD standard trimmer footprint
- Low CRV, 1 %
- Top and side adjust styles
- J-hook and gull-wing configurations

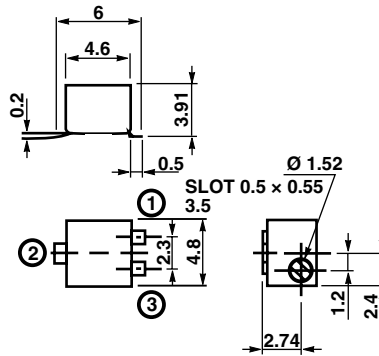


DIMENSIONS in millimeters

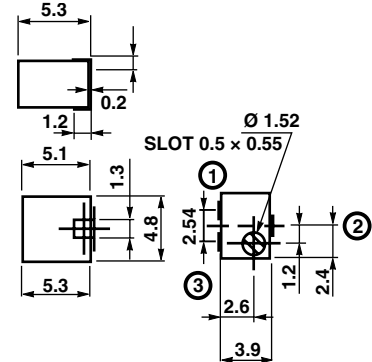
TSM43 ZJ



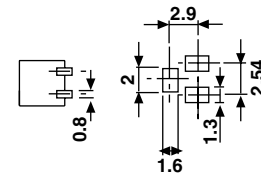
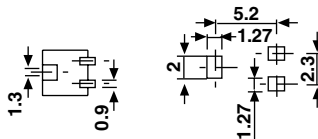
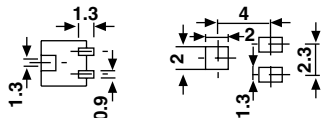
TSM43 ZL



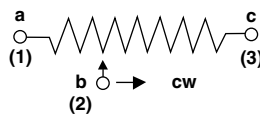
TSM43 YJ



RECOMMENDED SOLDERING AREAS



CIRCUIT DIAGRAM



Tolerances unless otherwise specified ± 0.5



Surface Mount Cermet Trimmers
Multi-turn Cermet Sealed, Industrial Grade

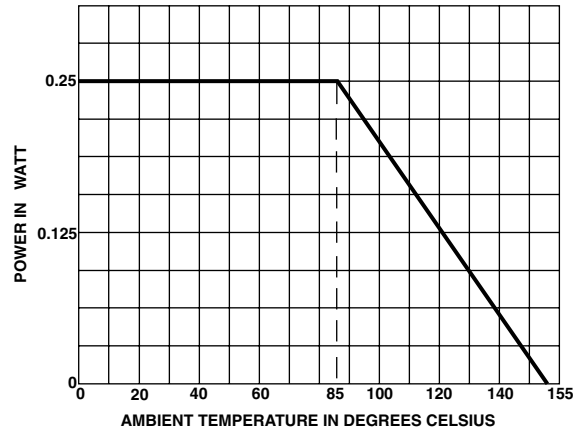
Vishay Sfernice

ELECTRICAL SPECIFICATIONS	
Resistive Element	Cermet
Resistance Range	10 Ω to 2 MΩ
Standard Series	1 - 2 - 5
Electrical Travel	11 turns nominal
Tolerance Standard	± 10 %
Power Rating	0.25 W at + 85 °C 0 W at + 150 °C
Limiting Element Voltage (Linear Law)	300 V
Resolution	infinite
Temperature Coefficient	± 100 ppm/°C
Contact Resistance Variation (CRV)	1 % or 3 Ω max
Minimum Resistance (absolute)	1 % or 2 Ω max (whichever is greater)
Sea Level Dielectric Strength (RMS)	600 Vac (1 minute)
Insulation Resistance (500 VDC)	100 MΩ min

MECHANICAL SPECIFICATIONS

End Stop Torque	clutch action
Operating Torque	180 g.cm max
Unit Weight (approx.)	0.28 g.
Solderability	Per MIL-STD-202 Method 208
Wiper (actual travel)	positioned at approx. 50 %
Flammability	UL-94V-0

POWER RATING CHART



ENVIRONMENTAL SPECIFICATIONS

Temperature Range	- 65 °C + 150 °C
MSL Level	2A

PERFORMANCE		
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS
Load Life	1000 hours at rated power 90/30' - ambient temperature + 85 °C	Total resistance shift = ± 3 Ω or ± 3 % whichever is greater
Humidity Moisture Resistance	MIL STD 202 Method 106 10 cycles of 24 hours constituted with damp heat - cold - vibrations	Total resistance shift = ± 2 % insulation resistance: 10 MΩ
Thermal Shock	5 cycles	Total resistance shift = ± 2 % Voltage resistance shift = ± 1 %
Rotational Cycling	100 cycles - rated powers	± 3 %
Shock	MIL STD 202 Method 213/1 100 g - 6 ms 3 successive shocks in 3 directions	Total resistance shift = ± 1 % Voltage resistance shift = ± 1 %
Vibration	MIL STD 202 Method 204/D 20 g - 12 hours	Total resistance shift = ± 1 % Voltage resistance shift = ± 1 %

MARKING

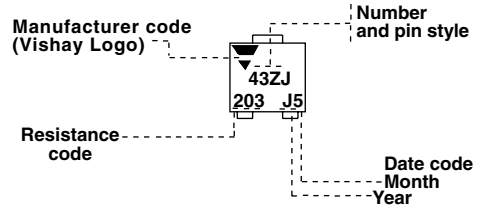
VISHAY SFERNICE trademark, ohmic value, manufacturing date.

The ohmic value is indicated by a 3 digit code, the first two are significant figures, the third one is the multiplier.

Example: 100 = 10 Ω
 101 = 100 Ω
 102 = 1 kΩ
 503 = 50 kΩ

SOLDERING RECOMMENDATIONS

see Application notes



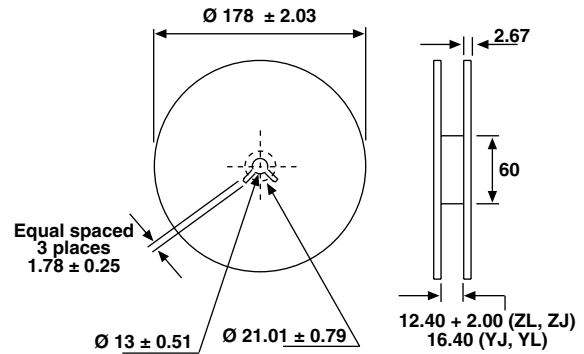
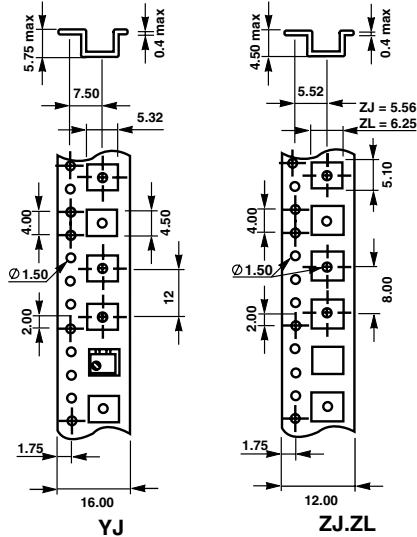
PACKAGING

Standard packaging: Tape and reel

Packaging quantities:

Pin style YJ = 250 pieces, order code TR250

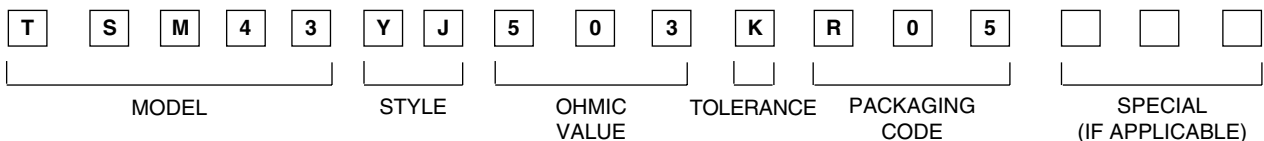
Pin style ZL, ZJ = 500 pieces, order code TR500



ORDERING INFORMATION

TSM43 SERIES	YJ PIN STYLE	50 kΩ RESISTANCE CODE	TR250 PACKAGING	e3 LEAD FINISH
	YJ ZJ ZL		YJ: code TR250 ZJ, ZL: code TR500	e3: pure Sn

SAP PART NUMBERING GUIDELINES



See the end of this data book for conversion tables



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.