Vishay Sfernice



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

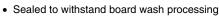








FEATURES





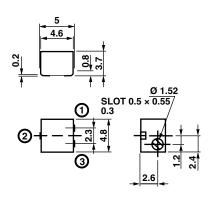


RoHS

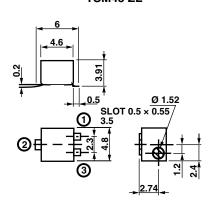
- 4.0 mm design meets EIA SMD standard trimmer footprint
- Low CRV, 1 %
- Top and side adjust styles
- J-hook and gull-wing configurations

DIMENSIONS in millimeters

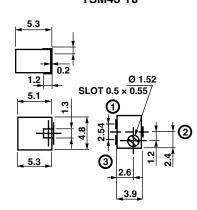
TSM43 ZJ



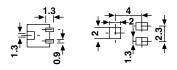
TSM43 ZL



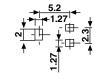
TSM43 YJ

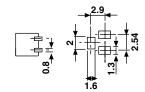


RECOMMENDED SOLDERING AREAS

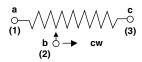








CIRCUIT DIAGRAM



Tolerances unless otherwise specified ± 0.5



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ELECTRICAL SPECIFICATIONS		
Resistive Element	Cermet	
Resistance Range	10 Ω to 2 M Ω	
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 M Ω 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 %

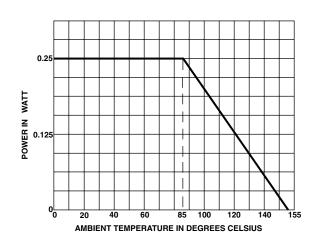
Flammability UL-94V-0

ENVIRONMENTAL SPECIFICATIONS

Temperature Range - 65 °C + 150 °C

MSL Level 2A

POWER RATING CHART



PERFORMANCE				
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
Load Life	1000 hours at rated power 90'/30' - ambient temperature + 85 °C	Total resistance shift = \pm 3 Ω or \pm 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 = \pm 2 % insulation resistance: 10 M Ω		
Thermal Shock	5 cycles	Total resistance shift = $\pm 2 \%$ Voltage resistance shift = $\pm 1 \%$		
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 = \pm 1 % Voltage resistance shift = \pm 1 %		

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MARKING

VISHAY SFERNICE trademark, ohmic value, manufacturing date.

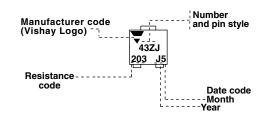
The ohmic value is indicated by a 3 digit code, the first two are significant figures, the third one is the multiplier.

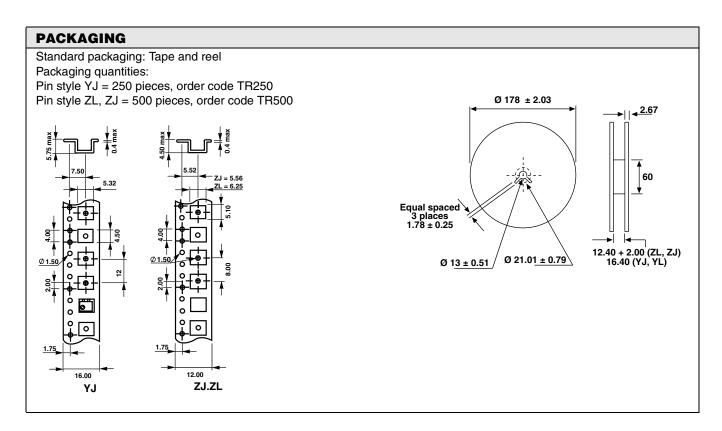
Example: $100 = 10 \Omega$

101 = 100 Ω 102 = 1 kΩ503 = 50 kΩ

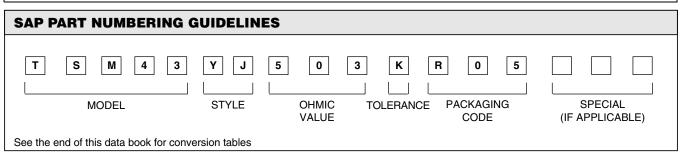
SOLDERING RECOMMENDATIONS

see Application notes





ORDERING INFO	RMATION			
TSM43	YJ	50 k Ω	TR250	e3
SERIES	PIN STYLE	RESISTANCE CODE	PACKAGING	LEAD FINISH
	YJ		YJ: code TR250	e3: pure Sn
	ZJ		ZJ, ZL: code TR500	
	ZL			





Vishay

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