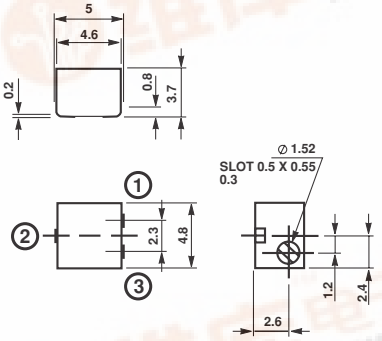
Surface Mount Cermet Trimmers
Multi-turn Cermet Sealed, Industrial Grade

FEATURES

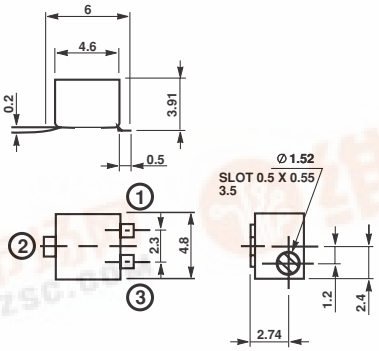
- Sealed to withstand board wash processing
- Pick and place centering design, with flush adjustment
- 4.0mm design meets EIA SMD standard trimmer footprint
- Low CRV, 1%
- Top and side adjust styles
- J-hook and gull-wing configurations

DIMENSIONS in millimeters

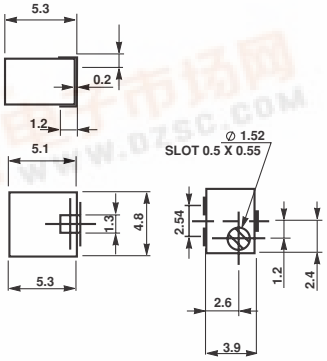
TSM43 ZJ



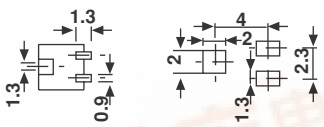
TSM43 ZL

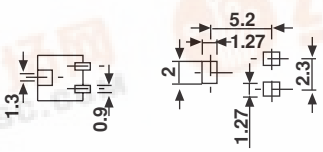


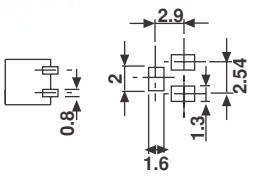
TSM43 YJ



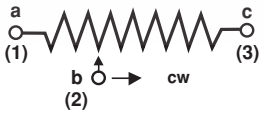
RECOMMENDED SOLDERING AREAS







CIRCUIT DIAGRAM



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

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

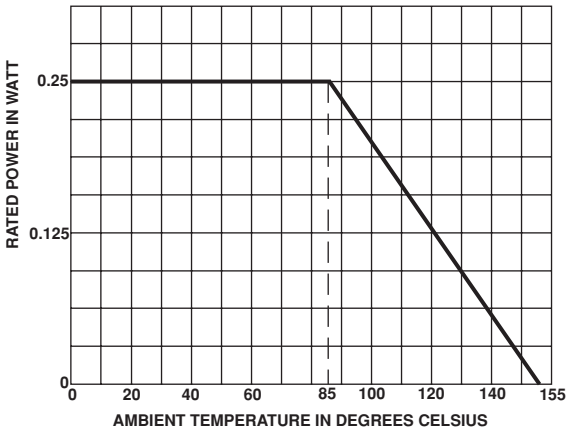
MECHANICAL SPECIFICATIONS

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	positioned at 50% nominal
Flammability	UL-94V-0

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	– 65°C + 150°C

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 = ± 3Ω 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: 10MΩ
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%

TSM43

Vishay Sfernice

Surface Mount Cermet Trimmers
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MARKING

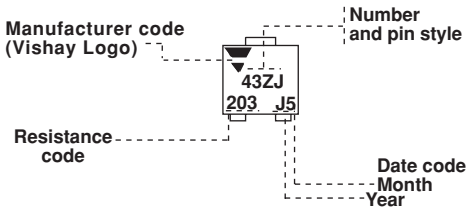
VISHAY SFERNICE trademark, ohmic value, manufacturing date.

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

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

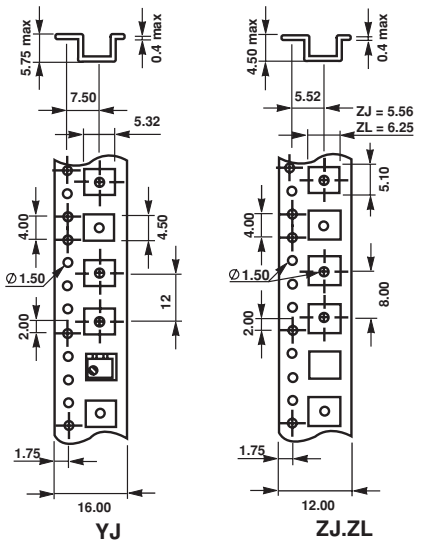
SOLDERING RECOMMENDATIONS

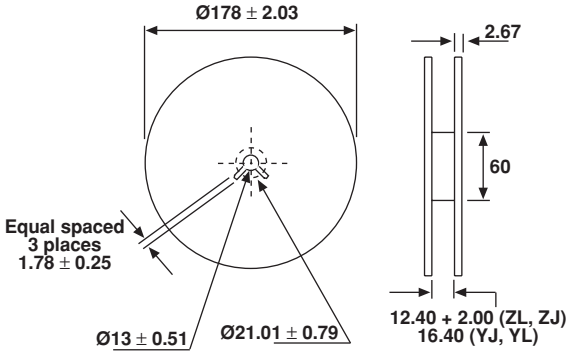
Vapour phase: 215°C/20 to 40 seconds.
Reflow: 230°C/20 seconds.
Do not exceed peak 260°C



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	YJ	50KΩ	TR250
SERIES	PIN STYLE	RESISTANCE CODE	PACKAGING
	YJ ZJ ZL		YJ: code TR250 ZJ, ZL: code TR500

SAP PART NUMBERING GUIDELINES

T	S	M	4	3	Y	J	5	0	3	K	R	0	5			
MODEL					STYLE		OHMIC VALUE			TOL	PACKAGING CODE			SPECIAL (IF APPLICABLE)		

See the end of this data book for conversion tables