Vishay Sfernice



1/4" Multi-Turn Sealed Container Cermet Trimmers





Due to their square shape and small size $(6.8 \times 6.8 \times 5 \text{mm})$, the multi-turn trimmers of the T63 series are ideally suited for PCB use, enabling high density board mounting with reduced space requirement between cards.

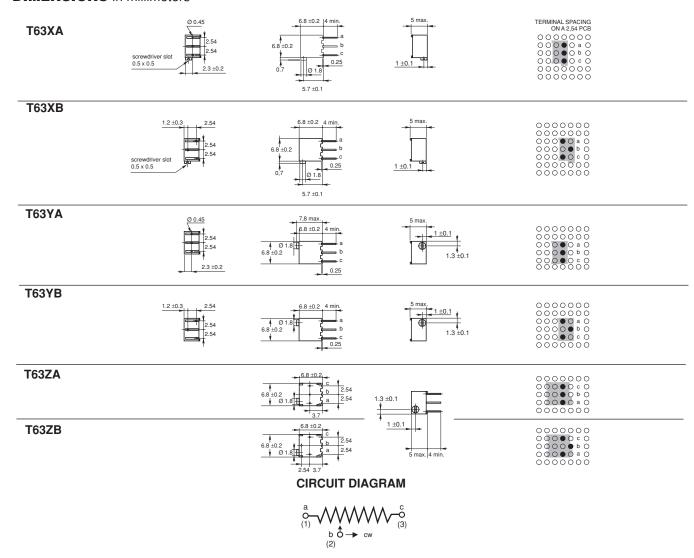
Four versions are available differing by the top or side position of the adjustment screw and by PC pins configuration.

The use of cermet for the resistive track ensures an excellent stability of nominal specifications throughout life.

FEATURES

- 0.25 Watt at 85°C
- Industrial Grade
- CECC 41 100
- MIL-R-22097
- · Multi-turn operation
- A low contact resistance variation
- Tight tolerance
- · Low end contact resistance

DIMENSIONS in millimeters



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ELECTRICAL SPECIFICATIONS				
Resistive Element		cermet		
Electrical Travel		13 turns ± 2		
Resistance Range		10 Ω to 2.2M Ω		
Standard Series and on F	Request Series E3	1 - 2 - 5 (1 - 2.2 - 4.7)		
Tolerance	Standard	± 10%		
	On Request	± 5%		
Power Rating	Linear	0.25W at + 85°C		
Temperature Coefficient		See Standard Resistance Element Table		
Limiting Element Voltage	(Linear Law)	250V		
Contact Resistance Varia	tion	2% Rn or 2 Ω		
End Resistance (Typical)		1Ω		
Dielectric Strength (RMS)		1000V		
Insulation Resistance (500VDC)		10 ⁶ MΩ		

MECHANICAL SPECIFICATIONS

Mechanical Travel 15 turns ± 5 1

Operating Torque (max. Ncm)

End Stop Torque clutch action

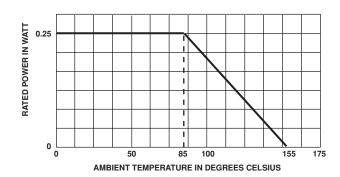
Unit Weight (max. g) 0.5

ENVIRONMENTAL SPECIFICATIONS

Temperature Range $-55^{\circ}C + 155^{\circ}C$ **Climatic Category** Sealing

55/125/56 fully sealed container IP67

POWER RATING CHART



PERFORMANCE					
		TYPICAL VALUES AND DRIFTS			
TESTS	CONDITIONS	<u>ΔRT</u> (%)		$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)	
Load Life	1000 hours at rated power 90'/30' - ambient temp. 85°C	± 1% Contact res. variation: < 1% Rn		± 2%	
Climatic Sequence	Phase A dry heat 125°C - 30% Pr Phase B damp heat Phase C cold – 55°C Phase D damp heat 5 cycles	± 0.5%		± 1%	
Long Term Damp Heat	56 days	$\begin{array}{c} \pm \ 0.5\% \\ \text{Dielectric strength} : 1000V \ \text{RMS} \\ \text{Insulation resistance} : > 10^4 \ \text{M}\Omega \end{array}$		± 1%	
Rapid Temperature Change	5 cycles - 55°C to + 125°C	± 0.5%	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}}$	≤ ± 1%	
Shock	50 g at 11m secs 3 successive shocks in 3 directions	± 0.1%		± 0.2%	
Vibration	10-55 Hz 0.75mm or 10 g during 6 hours	± 0.1%	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}}$	≤± 0.2%	
Rotational Life	200 cycles	± 2% Contact res. variation: < 1% Rn			

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For technical questions, contact: sfer@vishay.com

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STANDARD RESISTANCE ELEMENT DATA						
STANDARD		T.C.				
RESISTANCE VALUES	MAX. POWER AT 85°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH ELEMENT	-55°C +125°C		
Ω	W	V	mA	ppm/°C		
10	0.25	1.58	158			
20		2.23	112	0		
50		3.53	77	+200		
100		5	50			
200		7.07	35			
500		11.2	22			
1k		15.8	15.8			
2k		22.3	11.2			
5k		35.3	7.1			
10k		50	5			
20k		70.7	3.5	± 100		
25k		79	3.2	100		
50k		112	2.2			
100k	. .	158	1.6			
200k	0.25	224	1.1			
250k	0.25	250	1.1			
500k	0.13	250	0.50			
1M	0.06	250	0.25			
2.2M	0.03	250	0.125			

MARKING

Printed:

- VISHAY trademark
- series
- style
- ohmic value (in Ω , $k\Omega$, $M\Omega$)
- tolerance (in %)
- only if non standard,
- manufacturing date
- marking of terminal 3

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SERIES

- In magazine pack (tube) by 50 pieces code "TU50".

ORDERING INFORMATION $100 k \Omega$ T63 **VERSION**

± 10% OHMIC VALUE **TOLERANCE**

N.B.: On delivery the wiper is positioned at mid-travel TU50: Tube

SAP PART NUMBERING GUIDELINES

4 Κ 0 SPECIAL (IF APPLICABLE) OHMIC VALUE MODEL STYLE TOL **PACKAGING** CODE

See the end of this data book for conversion tables

TU50

PACKAGING

Legal Disclaimer Notice



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