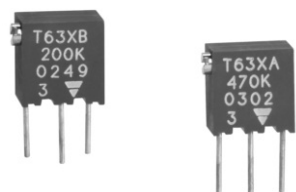


# 1/4" Multi-Turn Fully Sealed Container Cermet Trimmers



Due to their square shape and small size (6.8 x 6.8 x 5 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.

Six 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.

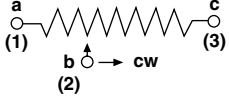
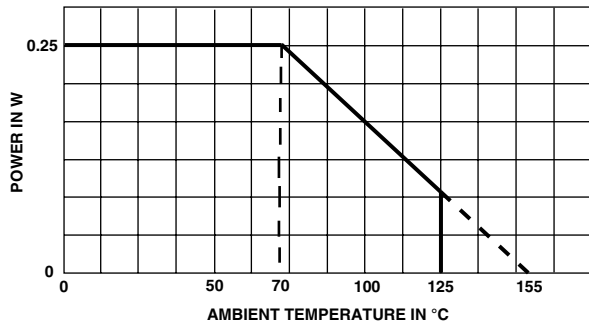
## FEATURES

- 0.25 W at 70 °C
- Industrial grade
- Tests according to CECC 41 000
- Multi-turn operation
- Low contact resistance variation 1 % typical



DIMENSIONS in millimeters ( $\pm 0.5$ mm)			
<b>T63XA</b>		<b>Terminal Spacing on a 2.54 PCB</b>	
<b>T63XB</b>			
<b>T63YA</b>			
<b>T63YB</b>			
<b>T63ZA</b>			
<b>T63ZB</b>			

**ELECTRICAL SPECIFICATIONS**

Resistive Element	Cermet
Electrical Travel	13 turns $\pm$ 2
Resistance Range	10 $\Omega$ to 2.2 M $\Omega$
Standard Series and an Request Series E3	1 - 2 - 5 (1 - 2.2 - 4.7)
Tolerance	standard $\pm$ 10 %
	on request $\pm$ 5 %
Power Rating	linear 0.25 W at + 70 °C
	<p><b>CIRCUIT DIAGRAM</b></p>  
Temperature Coefficient	see Standard Resistance Element Table
Limiting Element Voltage (Linear Law)	250 V
Contact Resistance Variation	2 % R <sub>n</sub> or 2 $\Omega$
End Resistance (Typical)	1 $\Omega$
Dielectric Strength (RMS)	1000 V
Insulation Resistance (500 VDC)	10 <sup>6</sup> M $\Omega$

**MECHANICAL SPECIFICATIONS**

Mechanical Travel	15 turns $\pm$ 5
Operating Torque (Max. Ncm)	1.5
End Stop Torque	Clutch action
Unit Weight (Max. g)	0.5
Wiper (Actual Travel)	Positioned at approx. 50 %


**ENVIRONMENTAL SPECIFICATIONS**

Temperature Range	- 55 °C to + 155 °C
Climatic Category	55/125/56
Sealing	Fully sealed - Container IP67

1/4" Multi-Turn Fully Sealed Container  
Cermet Trimmers

Vishay Sfernice

**STANDARD RESISTANCE ELEMENT DATA**

STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL TCR - 55 °C + 125 °C  ppm/°C
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	
$\Omega$	W	V	mA	
10	0.25	1.58	158	± 100
20		2.23	112	
50		3.5	77	
100		35	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	
25K		79	3.2	
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
- Model
- Style
- Ohmic value (in  $\Omega$ , k $\Omega$ , M $\Omega$ )
- Tolerance (in %) only if non standard
- Manufacturing date
- Marking of terminal 3

**PACKAGING**

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

**PERFORMANCES**

TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\Delta R_T/R_T$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)
Load Life	1000 h at rated power 90/30' - ambient temp. 70 °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 40 °C, 93 % RH	± 0.5 % Dielectric strength: 1000 V <sub>RMS</sub> Insulation resistance: > 10 <sup>4</sup> MΩ	± 1 %
Rapid Temperature Change	5 cycles - 55 °C to + 125 °C	± 0.5 %	$\Delta V_{1-2}/\Delta V_{1-3} \leq \pm 1 \%$
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %
Vibration	10 to 55 Hz 0.75 mm or 10 g during 6 h	± 0.1 %	$\Delta V_{1-2}/\Delta V_{1-3} \leq \pm 0.2 \%$
Rotational Life	200 cycles	± (2 % + 3 Ω) Contact res. variation: < 1 % Rn	-

**SAP ORDERING INFORMATION** (Part Number 15 digits)

T	6	3	X	A	1	0	4	K	T	2	0			
MODEL		STYLE		OHMIC VALUE		TOLERANCE		PACKAGING		SPECIAL NUMBER				
		XA XB YA YB ZA ZB		From 10 Ω to 2.2 MΩ 104 = 100 kΩ		K = 10 % on request J = 5 %		T20 = Tube 50 pieces		(if applicable) Given by VISHAY for custom design				

**PART NUMBER DESCRIPTION** (for information only)

T63	XA	100K	10 %		TU	e3
MODEL	VERSION	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD (Pb)-FREE



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