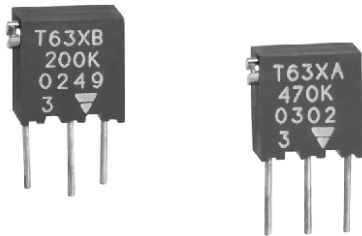


# 1/4" Multi-Turn Sealed Container Cermet Trimmers



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.

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

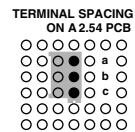
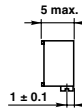
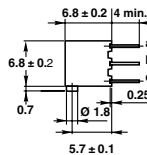
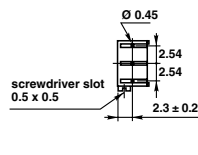
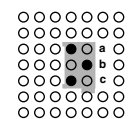
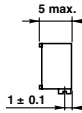
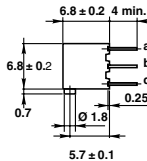
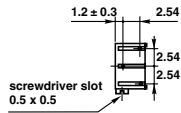
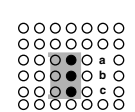
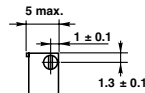
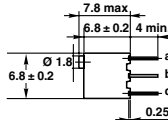
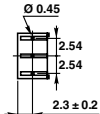
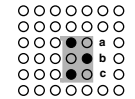
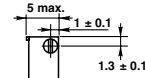
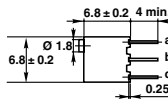
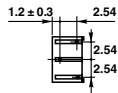
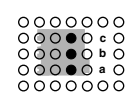
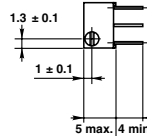
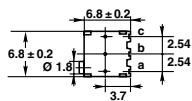
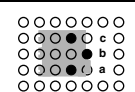
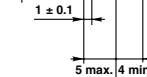
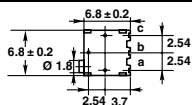
The use of cermet for the resistive track ensures an excellent stability of nominal specifications throughout life.

## FEATURES

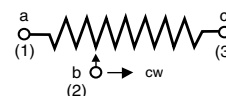
- 0.25 Watt at 85 °C
- Industrial grade
- Tests according to GECC 41 000
- Multi-turn operation
- Low contact resistance variation 1 % typical



## DIMENSIONS in millimeters

**T63XA**

**T63XB**

**T63YA**

**T63YB**

**T63ZA**

**T63ZB**


## CIRCUIT DIAGRAM



Tolerance unless otherwise specified ± 0.5

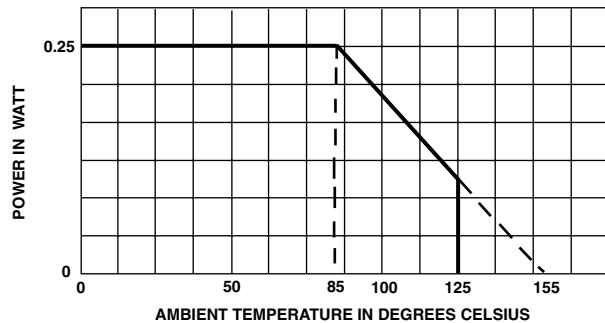


ELECTRICAL SPECIFICATIONS		
Resistive Element		cermet
Electrical Travel		13 turns ± 2
Resistance Range		10 Ω to 2.2 MΩ
Standard Series and on Request Series E3		1 - 2 - 5 (1 - 2.2 - 4.7)
Tolerance	Standard	± 10 %
	On Request	± 5 %
Power Rating	Linear	0.25 W at + 85 °C
Temperature Coefficient		See Standard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

**MECHANICAL SPECIFICATIONS**

Mechanical Travel	15 turns ± 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 %

**POWER RATING CHART**



**ENVIRONMENTAL SPECIFICATIONS**

Temperature Range	- 55 °C + 155 °C
Climatic Category	55/125/56
Sealing	fully sealed container IP67

PERFORMANCE			
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\frac{\Delta RT}{RT}$ (%)	$\frac{\Delta R_{1-2}}{R_{1-2}}$ (%)
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 40 °C 93 % RH	± 0.5 % Dielectric strength : 1000V RMS Insulation resistance : > 10 <sup>4</sup> MΩ	± 1 %
Rapid Temperature Change	5 cycles - 55 °C to + 125 °C	± 0.5 %	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}} \leq \pm 1 \%$
Shock	50 g at 11 m secs 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.1 %	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}} \leq \pm 0.2 \%$
Rotational Life	200 cycles	± 2 % Contact res. variation: < 1 % Rn	



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

Vishay Sfernice

<b>STANDARD RESISTANCE ELEMENT DATA</b>				
STANDARD RESISTANCE VALUES	LINEAR LAW			TCR - 55 °C + 125 °C
	MAX. POWER AT 85 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	
Ω	W	V	mA	ppm/°C
10	0.25	1.58	158	0 + 200
20	↓	2.23	112	
50		3.53	77	
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		
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 Ω, kΩ, MΩ)
  - tolerance (in %)
  - only if non standard,
  - manufacturing date
  - marking of terminal 3

<b>PACKAGING</b>
- In magazine pack (tube) by 50 pieces code "TU50".

<b>ORDERING INFORMATION</b>					
<b>T63</b> MODEL	<b>XA</b> VERSION	<b>100 kΩ</b> OHMIC VALUE	<b>± 10 %</b> TOLERANCE	<b>TU50</b> PACKAGING	<b>e3</b> LEAD FINISH
				TU50: Tube	e3: pure Sn

<b>SAP PART NUMBERING GUIDELINES</b>														
T	6	3	X	A	1	0	4	K	T	2	0	□	□	□
MODEL			STYLE		OHMIC VALUE			TOL	PACKAGING CODE			SPECIAL (IF APPLICABLE)		
See the end of this data book for conversion tables														



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