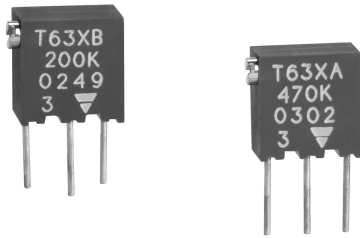


# 1/4" Multi-Turn Sealed Container Cermet Trimmers



## 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

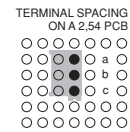
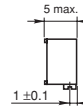
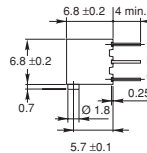
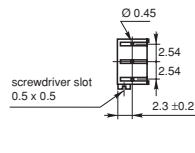
Due to their square shape and small size (6.8 x 6.8 x 5mm), the multi-turn trimmers of the T63 series are ideally suited for PCB use, enabling high density board mounting with reduced space requirement between cards.

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

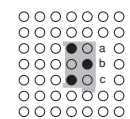
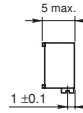
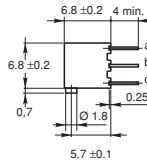
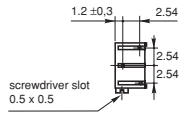
The use of cermet for the resistive track ensures an excellent stability of nominal specifications throughout life.

## DIMENSIONS in millimeters

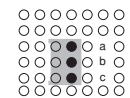
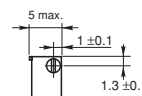
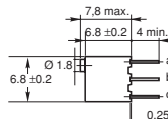
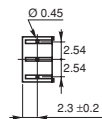
### T63XA



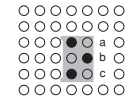
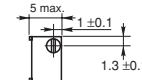
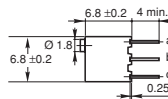
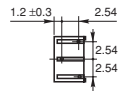
### T63XB



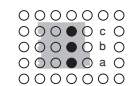
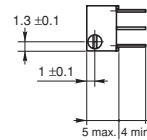
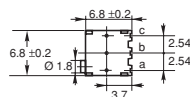
### T63YA



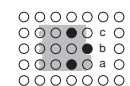
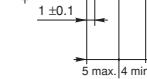
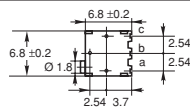
### T63YB



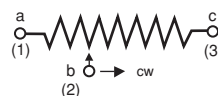
### T63ZA



### T63ZB



## CIRCUIT DIAGRAM



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

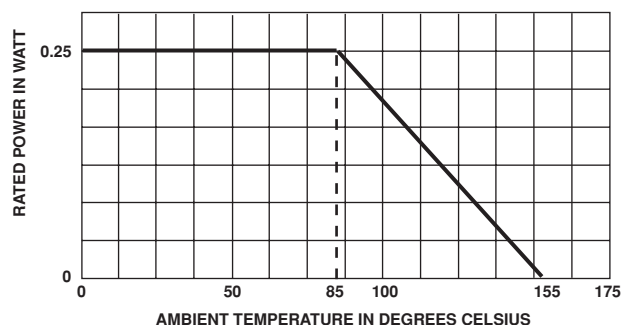
## MECHANICAL SPECIFICATIONS

Mechanical Travel	15 turns $\pm$ 5
Operating Torque (max. Ncm)	1
End Stop Torque	clutch action
Unit Weight (max. g)	0.5

## ENVIRONMENTAL SPECIFICATIONS

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

## POWER RATING CHART



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	$\pm$ 1% Contact res. variation: < 1% R <sub>n</sub>	$\pm$ 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	$\pm$ 0.5%	$\pm$ 1%
Long Term Damp Heat	56 days	$\pm$ 0.5% Dielectric strength : 1000V RMS Insulation resistance : > 10 <sup>4</sup> M $\Omega$	$\pm$ 1%
Rapid Temperature Change	5 cycles - 55°C to + 125°C	$\pm$ 0.5%	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}} \leq \pm 1\%$
Shock	50 g at 11m secs 3 successive shocks in 3 directions	$\pm$ 0.1%	$\pm 0.2\%$
Vibration	10-55 Hz 0.75mm or 10 g during 6 hours	$\pm$ 0.1%	$\frac{\Delta V_{1-2}}{\Delta V_{1-3}} \leq \pm 0.2\%$
Rotational Life	200 cycles	$\pm$ 2% Contact res. variation: < 1% R <sub>n</sub>	



STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. -55°C +125°C
	MAX. POWER AT 85°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH ELEMENT	
Ω	W	V	mA	ppm/°C
10	↓	1.58	158	0 +200
20		2.23	112	
50		3.53	77	
100		5	50	± 100
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
  - series
  - style
  - ohmic value (in Ω, kΩ, MΩ)
  - tolerance (in %)
  - only if non standard,
  - manufacturing date
  - marking of terminal 3

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

ORDERING INFORMATION				
T63 SERIES	XA VERSION	100kΩ OHMIC VALUE	± 10% TOLERANCE	TU50 PACKAGING
N.B.: On delivery the wiper is positioned at mid-travel				TU50 : Tube

SAP PART NUMBERING GUIDELINES												
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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