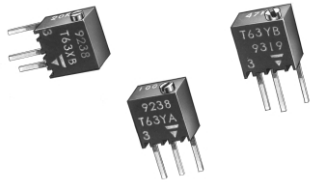


# 1/4" Multiturn Sealed Container Cermet Trimmers



Due to their square shape and small size (6.8 x 6.8 x 5 mm), the multiturn 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.

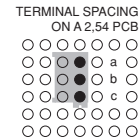
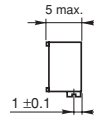
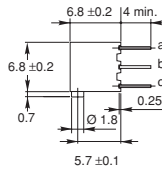
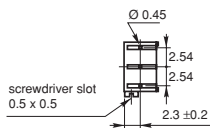
The use of cermet for the resistive track ensures an excellent stability of nominal specifications throughout life.

## FEATURES

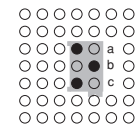
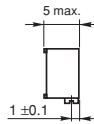
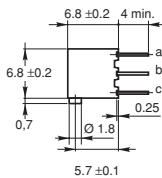
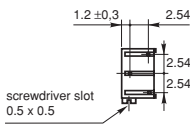
- 0.25 Watt at 85°C
- Industrial grade
- CECC 41 100
- MIL-R-22097
- Multiturn operation
- A low contact resistance variation
- Tight tolerancing
- Low end contact resistance

## DIMENSIONS in millimeters

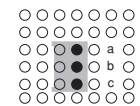
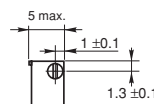
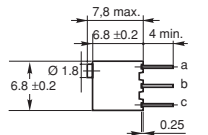
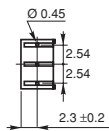
### T63XA



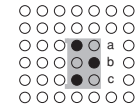
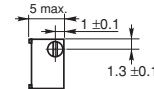
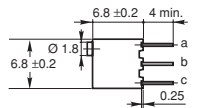
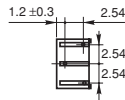
### T63XB



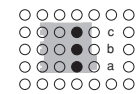
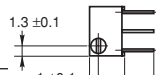
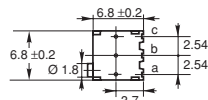
### T63YA



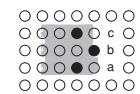
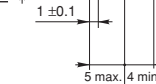
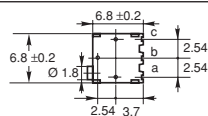
### T63YB



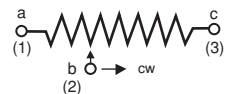
### T63ZA



### T63ZB



## CIRCUIT DIAGRAM





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

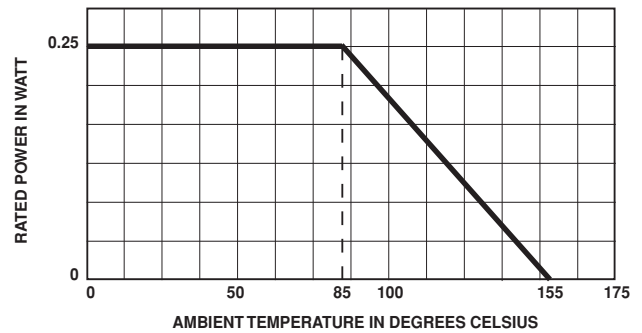
**MECHANICAL SPECIFICATIONS**

Mechanical Travel	15 turns ± 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 temperature 85°C	± 1% Contact resistance 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	± 0.5% Dielectric strength : 1000 V RMS Insulation resistance : > 10 <sup>6</sup> MΩ      ± 1%
Rapid Temperature Change	5 cycles - 55°C at + 125°C	± 0.5 % $\frac{\Delta V_{1-2} \leq \pm 1\%}{V_{1-3}}$
Shock	50 g 11 ms 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% $\frac{\Delta V_{1-2} \leq \pm 0.2\%}{V_{1-3}}$
Rotational Life	200 cycles	± 2 % Contact resistance variation : < 1% Rn



**MARKING**

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

<b>STANDARD RESISTANCE ELEMENT DATA</b>				
STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. - 55°C + 125°C
	MAX. POWER AT 85°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH ELEMENT	
$\Omega$	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	± 100
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	
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	

**PACKAGING**

– In magazine pack (tube) by 50 pieces code “TU50”.

**ORDERING INFORMATION**

<b>T63</b>	<b>XA</b>	<b>100k<math>\Omega</math></b>	<b>± 10 %</b>	<b>TU50</b>
SERIES	VERSION	OHMIC VALUE	TOLERANCE	PACKAGING
	N.B.: On delivery the wiper is positioned at mid-travel.			TU50 : Tube