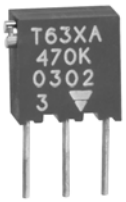
1/4" Multi-Turn Sealed Container Cermet Trimmers



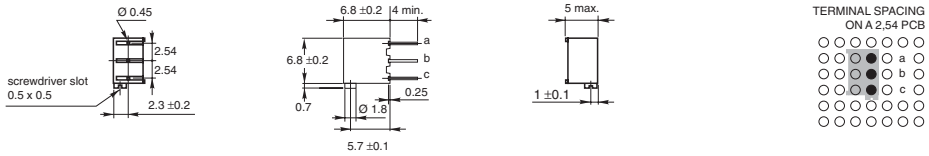
FEATURES

- 0.25 Watt at 85 °C
- Industrial Grade
- Tests according to CECC 41 000
- MIL-R-22097
- Multi-turn operation
- A low contact resistance variation
- Tight tolerance
- Low end contact resistance

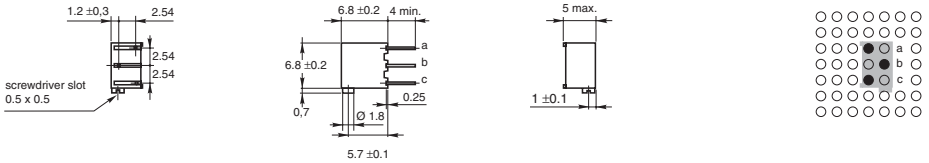
Due to their square shape and small size (6.8 x 6.8 x 5 mm), the multi-turn trimmers of the T63 series are ideally suited for PCB use, enabling high density board mounting with reduced space requirement between cards.
Four versions are available differing by the top or side position of the adjustment screw and by PC pins configuration.
The use of cermet for the resistive track ensures an excellent stability of nominal specifications throughout life.

DIMENSIONS in millimeters

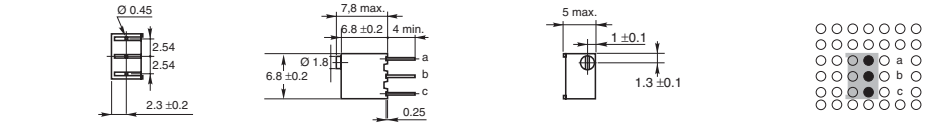
T63XA



T63XB



T63YA



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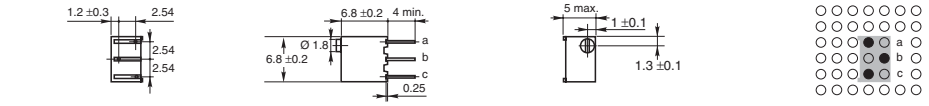

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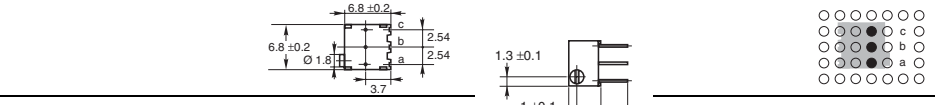
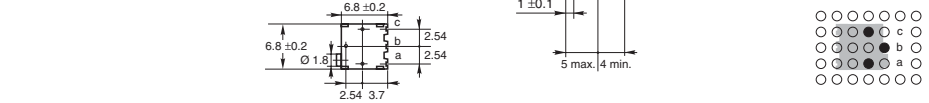
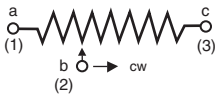


T63ZB



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)		10^6 MΩ

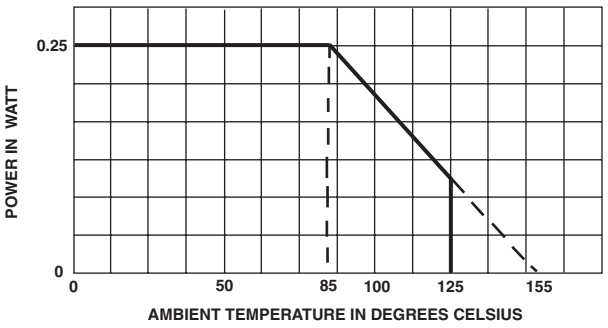
MECHANICAL SPECIFICATIONS

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 %

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	± 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 : > 10^4 MΩ	± 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 0.75 mm 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	

STANDARD RESISTANCE ELEMENT DATA

STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. – 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	
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	
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
– model
– 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	**XA**	**100 kΩ**	**± 10 %**	**TU50**	**e3**
MODEL	VERSION	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD FINISH
				TU50 : Tube	e: pure Sn

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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