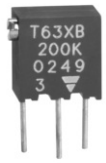
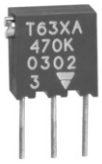
1/4" Multi-Turn Fully Sealed Container Cermet Trimmers





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.

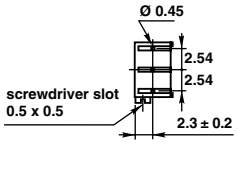
FEATURES

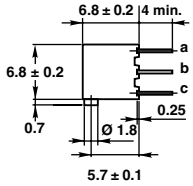
- 0.25 W at 70 °C
- Industrial grade
- Tests according to CECC 41 000
- Multi-turn operation
- Low contact resistance variation 1 % typical

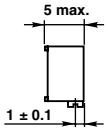
RoHS COMPLIANT

DIMENSIONS in millimeters (± 0.5 mm)

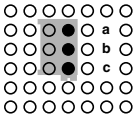
T63XA



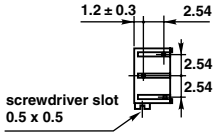


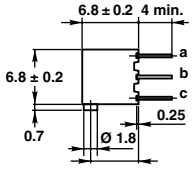


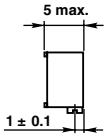
Terminal Spacing on a 2.54 PCB

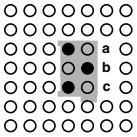


T63XB

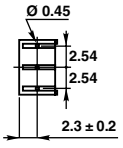


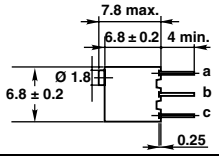


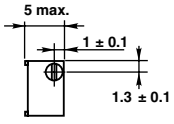


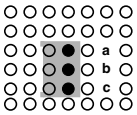


T63YA

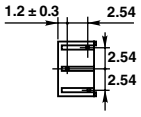


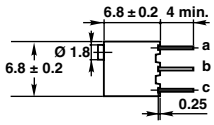


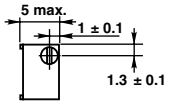


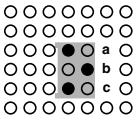


T63YB

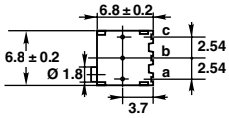


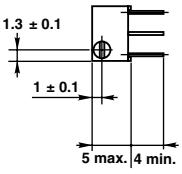


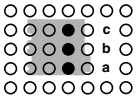




T63ZA







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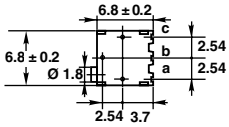
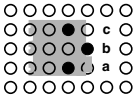
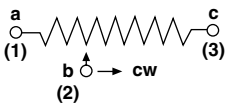
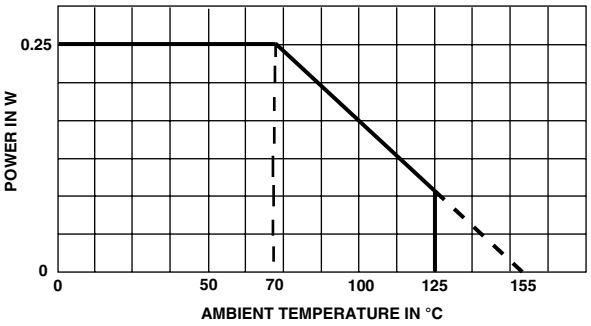




ELECTRICAL SPECIFICATIONS	
Resistive Element	Cermet
Electrical Travel	13 turns ± 2
Resistance Range	10 Ω to 2.2 MΩ
Standard Series and an Request Series E3	1 - 2 - 5 (1 - 2.2 - 4.7)
Tolerance standard	± 10 %
Tolerance on request	± 5 %
Power Rating linear	0.25 W at + 70 °C
Power Rating	CIRCUIT DIAGRAM  
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 (500 VDC)	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 to + 155 °C
Climatic Category	55/125/56
Sealing	Fully sealed - Container IP67

STANDARD RESISTANCE ELEMENT DATA

STANDARD RESISTANCE VALUES	LINEAR LAW			TYPICAL TCR - 55 °C + 125 °C
	MAX. POWER AT 70 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	
Ω	W	V	mA	ppm/°C
10	0.25	1.58	158	
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	± 100
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 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

PERFORMANCES

TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS	
		$\Delta R_T/R_T$ (%)	$\Delta R_{1\text{-}2}/R_{1\text{-}2}$ (%)
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_{RMS} Insulation resistance: > 10^4 MΩ	± 1 %
Rapid Temperature Change	5 cycles - 55 °C to + 125 °C	± 0.5 %	$\Delta V_{1\text{-}2}/\Delta V_{1\text{-}3} \leq$ ± 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 %	$\Delta V_{1\text{-}2}/\Delta V_{1\text{-}3} \leq$ ± 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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All product specifications and data are subject to change without notice.

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