

Excellent Integrated System Limited

Stocking Distributor

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[Vishay Sfernice](#)
[T63XB102KT20](#)

For any questions, you can email us directly:

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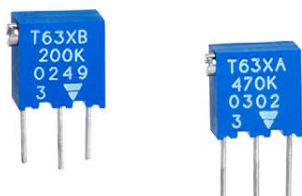


www.vishay.com

T63

Vishay Sfernice

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



Due to their square shape and small size (6.8 mm x 6.8 mm 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 41000 or IEC 60393-1
- Multi-turn operation
- Low contact resistance variation 1 % typical
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

DIMENSIONS in millimeters (± 0.5 mm)			Terminal Spacing on a 2.54 PCB
T63XA			
T63XB			
T63YA			
T63YB			
T63ZA			
T63ZB			



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ELECTRICAL SPECIFICATIONS											
Resistive element	Cermet										
Electrical travel	14 turns \pm 2										
Resistance range	10 Ω to 2.2 M Ω										
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	<p>Linear 0.25 W at 70 °C</p> <table border="1"> <caption>Power Rating Data</caption> <thead> <tr> <th>Ambient Temperature (°C)</th> <th>Power (W)</th> </tr> </thead> <tbody> <tr><td>0</td><td>0.25</td></tr> <tr><td>70</td><td>0.25</td></tr> <tr><td>125</td><td>0.125</td></tr> <tr><td>155</td><td>0</td></tr> </tbody> </table>	Ambient Temperature (°C)	Power (W)	0	0.25	70	0.25	125	0.125	155	0
Ambient Temperature (°C)	Power (W)										
0	0.25										
70	0.25										
125	0.125										
155	0										
Circuit diagram											
Temperature coefficient	See Standard Resistance Element table										
Limiting element voltage (linear law)	250 V										
Contact resistance variation	2 % R _n or 2 Ω										
End resistance (typical)	1 Ω										
Dielectric strength (RMS)	1000 V										
Insulation resistance (500 V _{DC})	10 ⁶ M Ω										

MECHANICAL SPECIFICATIONS	
Mechanical travel	15 turns \pm 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 %
Terminals	Pure Sn (code e3)

ENVIRONMENTAL SPECIFICATIONS	
Temperature range	-55 °C to +155 °C
Climatic category	55/125/56
Sealing	Fully sealed - IP67



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PERFORMANCES				
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS		
		$\Delta R_T/R_T$	$\Delta R_{1-2}/R_{1-2}$	OTHER
Electrical endurance	1000 h at rated power 90°/30° - ambient temperature 70 °C	± 1 %	± 2 %	Contact res. variation: < 1 % R _n
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 %	-
Damp heat, steady state	56 days 40 °C, 93 % RH	± 0.5 %	± 1 %	Dielectric strength: 1000 V _{RMS} Insulation resistance: > 10 ⁴ MΩ
Rapid temperature change	5 cycles -55 °C to +125 °C	± 0.5 %	-	$\Delta V_{1-2}/V_{1-3} \leq \pm 1 \%$
Shock	50 g at 11 ms 3 successive shocks in 3 directions	± 0.1 %	± 0.2 %	-
Vibration	10 Hz to 55 Hz 0.75 mm or 10 g during 6 h	± 0.1 %	-	$\Delta V_{1-2}/V_{1-3} \leq \pm 0.2 \%$
Mechanical endurance	200 cycles	± (2 % + 3 Ω)	-	Contact res. variation: < 1 % R _n

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability.

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 CURRENT	
Ω	W	V	mA	ppm/°C
10	0.25	1.58	158	± 100
20	0.25	2.23	112	
50	0.25	3.5	77	
100	0.25	35	50	
200	0.25	7.07	35	
500	0.25	11.2	22	
1K	0.25	15.8	15.8	
2K	0.25	22.3	11.2	
5K	0.25	35.3	7.1	
10K	0.25	50	5	
20K	0.25	70.7	3.5	
25K	0.25	79	3.2	
50K	0.25	112	2.2	
100K	0.25	158	1.6	
200K	0.25	224	1.1	
250K	0.25	250	1.1	
500K	0.13	250	0.5	
1M	0.06	250	0.25	
2.2M	0.03	250	0.125	

MARKING

- Vishay trademark
- Model
- Style
- Ohmic value (in Ω, kΩ, MΩ)
- Tolerance (in %) only if non standard
- Manufacturing date
- Marking of terminal 3

PACKAGING

- In tube of 50 pieces code T20 (TU50)



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ORDERING INFORMATION (part number)

T	6	3	X	A	1	0	4	K	T	2	0			
MODEL		STYLE		OHMIC VALUE		TOLERANCE		PACKAGING		SPECIAL NUMBER				
T63		XA XB YA YB ZA ZB		From 10 Ω to 2.2 M Ω 104 = 100 k Ω		K = 10 % on request J = 5 %		T20 = tube 50 pieces		(If applicable) Given by Vishay for custom design				

DESCRIPTION (for information only)

T63	XA	100K	10 %		TU	e3
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD (Pb)-FREE

RELATED DOCUMENTS

APPLICATION NOTES

Potentiometers and Trimmers	www.vishay.com/doc?51001
Guidelines for Vishay Sfernice Resistive and Inductive Components	www.vishay.com/doc?52029



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