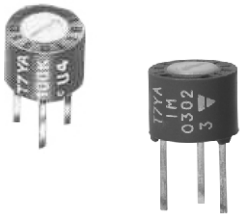
Miniature Cermet Trimmers



The T7 trimmer is only 7 mm (0.275") in diameter and fits almost anywhere.

A dust sealed plastic case protecting a quality cermet track guarantees high performance and proven reliability. Adjustments are made easier by the clear scale readings. T7 is ideally suited to all industrial applications.

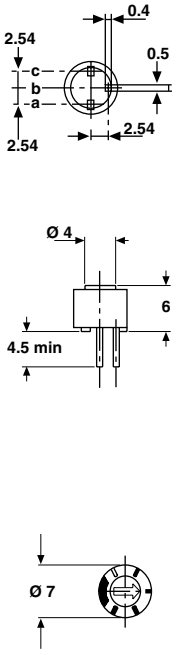
FEATURES

- Industrial grade
- 0.5 Watt at 85 °C
- Test according to CECC 41100
- Low temperature coefficient (100 ppm/K typical)
- Wide resistance range (10 Ω to 2.2 MΩ)
- Easy to read scale

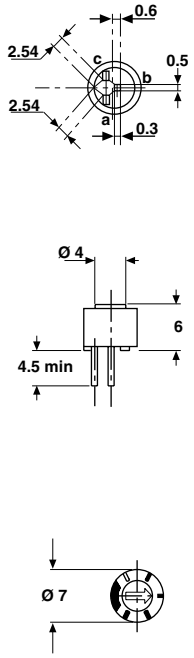
RoHS COMPLIANT

DIMENSIONS in millimeters

T7 YA

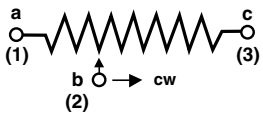


T7 YB



Tolerances unless otherwise specified ± 0.5 mm

CIRCUIT DIAGRAM



ELECTRICAL SPECIFICATIONS		
Resistive Element		Cermet
Electrical Travel		270° ± 15°
Resistance Range		10 Ω to 2.2 MΩ
Standard Series E3		1 - 2.2 - 4.7 and on request 1 - 2 - 5
Tolerance Standard	**Standard**	± 20 %
	On Request	± 10 %
Power Rating	**Linear**	0.5 W at 85 °C
	Logarithmic	not applicable
Temperature Coefficient		See Standard Resistance Element Data
Limiting Element Voltage (Linear Law)		250 V
Contact Resistance Variation		3 % or 3 Ω
End Resistance (Typical)		1 Ω
Dielectric Strength (RMS)		1000 V
Insulation Resistance		10^6 MΩ

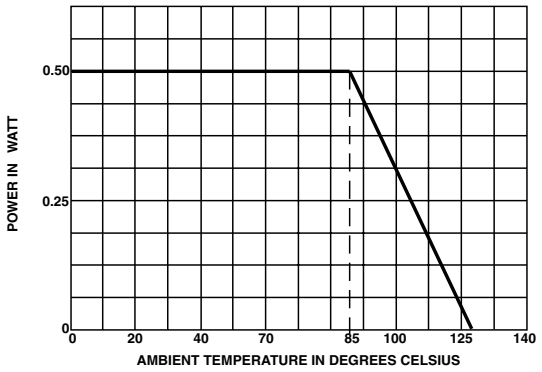
MECHANICAL SPECIFICATIONS

Mechanical Travel	300° ± 5°
Operating Torque (max. Ncm)	2
End Stop Torque (max. Ncm)	4
Unit Weight (max. g)	0.5

ENVIRONMENTAL SPECIFICATIONS

Temperature Range	- 55 °C to + 125 °C
Climatic Category	55/100/56
Sealing	IP64

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 70 °C	± 3 %	± 4 % Contact resistance variation: < 3 % Rn
Climatic Sequence	Phase A dry heat 100 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 2 %	± 3 %
Long Term Damp Heat	56 days	± 2 % Dielectric strength: 1000 V RMS Insulation resistance: > 10^4 MΩ	± 3 %
Rapid Temperature Change	5 cycles - 55 °C at + 125 °C	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 2$ %
Shock	50 g 11 ms 3 successive shocks in 3 directions	± 0.5 %	± 1 %
Vibration	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 0.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 1$ %
Rotational Life	200 cycles	± 3 % Contact resistance variation: < 3 % Rn	

STANDARD RESISTANCE ELEMENT DATA

STANDARD RESISTANCE VALUES	LINEAR LAW			TCR - 55 °C + 125 °C
	MAX. POWER AT 85 °C	MAX. WORKING VOLTAGE	MAX. WIPER CUR.	
Ω	W	V	mA	ppm/°C
10	0.5	2.2	224	
22		3.3	150	0
47		4.8	103	+ 200
100		7.0	70	
220		10.5	47	
470		15.3	32	
1K		22.4	22	
2.2K		33.2	15	
4.7K		48.5	10	
10K		70.7	7	
22K		105	4.8	± 100
47K		153	3.2	
100K	0.5	224	2.2	
220K	0.28	250	1.1	
470K	0.13	250	1.53	
1M	0.06	250	0.25	
2.2M	0.028	250	0.11	

MARKING

Printed:
- VISHAY trademark
- series
- YA or YB style
- ohmic value (in Ω, kΩ, MΩ)
- manufacturing date
- marking of terminal: 3.

SEALING

T7 is sealed against dust (IP64).

For board cleaning, Vishay recommands testing before usage. Water immersion is forbidden. Ultrasonic may cause component damage or failure.

PACKAGING

- In bulk (box of 200 pieces), code BO200
- On request in Tube, code TU50

ORDERING INFORMATION

T7	**YA**	**470 kΩ**	**± 20 %**	**BO200**	**e2**
SERIES	STYLE	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD FINISH
	YA - YB			BO200 On request: TU50	e2: SnAg alloy

SAP PART NUMBERING GUIDELINES

T	7	Y	A	4	7	4	M	B	4	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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