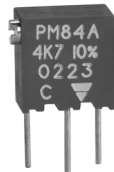


# 1/4" Multi-Turn Fully Sealed Container Cermet Trimmer



Due to their square shape and small size (6.8 mm x 6.8 mm x 5 mm), the multi-turn trimmers of the T6 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.


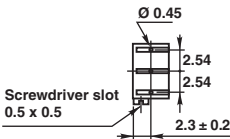
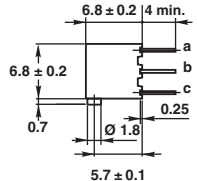
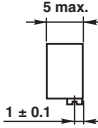
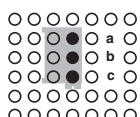

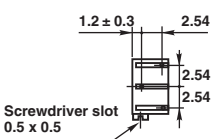
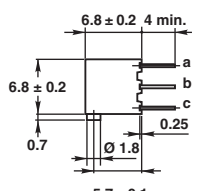
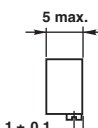
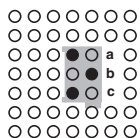

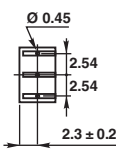
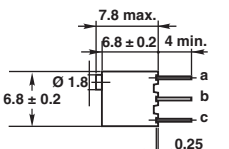
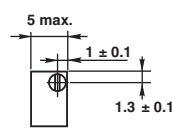
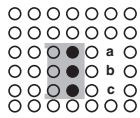

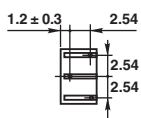
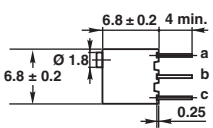
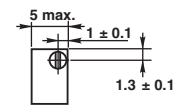
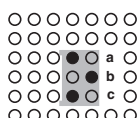

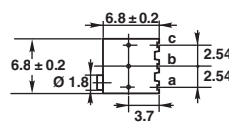
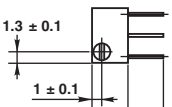
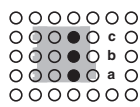

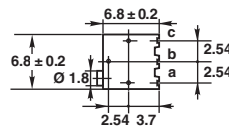
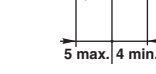
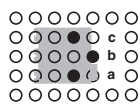
## FEATURES

- Military and professional grade
- 0.25 W at 70 °C
- Product qualification according to CECC 41100-005 (A, B, C, D)
- For qualified range, refer to [www.vishay.com/doc?51002](http://www.vishay.com/doc?51002)
- Equivalent to MIL-R-22097 (RJ26)
- Low contact resistance variation 1 % typical
- Fully sealed
- Wide range of ohmic values from 10  $\Omega$  to 2.2 M $\Omega$
- Tests according to CECC 41000 or IEC 60393-1
- Compliant to RoHS Directive 2002/95/EC

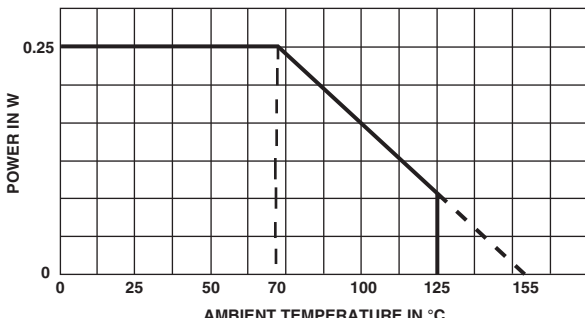
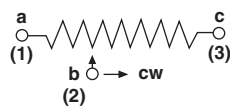


**RoHS**  
COMPLIANT

## DIMENSIONS in millimeters ( $\pm 0.5$ mm)

<b>T6XA</b> (PM 84) C 				<b>Terminal Spacing on a 2.54 PCB</b> 
<b>T6XB</b> (PM 84) A 				
<b>T6YA</b> (PM 84) D 				
<b>T6YB</b> (PM 84) B 				
<b>T6ZA</b> 				
<b>T6ZB</b> 				

 Undergoes European Quality Assurance System (CECC)

ELECTRICAL SPECIFICATIONS	
Resistive element	Cermet
Electrical travel	14 turns $\pm$ 2
Resistance range	10 $\Omega$ to 2.2 M $\Omega$
Standard series E3	1 - 2.2 - 4.7 and on request 1 - 2 - 5
Tolerance	Standard 10 %
	On request 5 %
Power rating	Linear 0.25 W at + 70 °C 
Circuit diagram	
Temperature coefficient	See Standard Resistance Element table
Limiting element voltage (linear law)	250 V
Contact resistance variation	2 % R <sub>n</sub> or 2 $\Omega$
End resistance (typical)	1 $\Omega$
Dielectric strength (RMS)	1000 V
Insulation resistance (500 V <sub>DC</sub> )	10 <sup>6</sup> M $\Omega$

MECHANICAL SPECIFICATIONS	
Mechanical travel	15 turns $\pm$ 5
Operating torque (max. Ncm)	1
End stop torque	Clutch action
Net 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

**PERFORMANCES**

CECC 41100		REQUIREMENTS		TYPICAL VALUES AND DRIFTS	
TESTS	CONDITIONS	$\Delta R_T/R_T$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)	$\Delta R_T/R_T$ (%)	$\Delta R_{1-2}/R_{1-2}$ (%)
<b>Climatic sequence</b>	Phase A dry heat 125 °C Phase B damp heat Phase C cold - 55 °C Phase D damp heat 5 cycles	± 2 %	± 3 %	± 0.5 %	± 1 %
<b>Long term damp heat</b>	56 days 40 °C, 93 % RH	± 2 % Dielectric strength: 250 V Insulation resistance: > 100 MΩ	± 3 %	± 0.5 % Dielectric strength: 1000 V Insulation resistance: > 10 <sup>4</sup> MΩ	± 1 %
<b>Rotational life</b>	200 cycles	± 2 % Contact res. variation: < 3 % R <sub>n</sub>	-	± (2 % + 3 Ω) Contact res. variation: < 1 % R <sub>n</sub>	-
<b>Load life</b>	1000 h at rated power 90°/30° - ambient temp. 70 °C	± 2 % Contact res. variation: < 3 % R <sub>n</sub>	± 4 %	± 1 % Contact res. variation: < 1 % R <sub>n</sub>	± 2 %
<b>Rapid temp. change</b>	5 cycles - 55 °C to + 125 °C	± 1.5 %	$\Delta V_{1-2}/\Delta V_{1-3}$ ± 1 %	± 0.5 %	$\Delta V_{1-2}/\Delta V_{1-3}$ < ± 1 %
<b>Shock</b>	50 g at 11 ms 3 successive shocks in 3 directions	± 1 %	± 2 %	± 0.1 %	± 0.2 %
<b>Vibration</b>	10 Hz to 55 Hz 0.75 mm or 10 g during 6 h	± 1 %	$\Delta V_{1-2}/\Delta V_{1-3}$ ± 2 %	± 0.1 %	$\Delta V_{1-2}/\Delta V_{1-3}$ < ± 0.2 %

**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	± 100
22	0.25	2.34	107	
47	0.25	3.53	73	
100	0.25	5	50	
220	0.25	7.42	34	
470	0.25	10.8	23	
1K	0.25	15.8	15.8	
2.2K	0.25	23.4	10.7	
4.7K	0.25	34.3	7.3	
10K	0.25	50	5	
22K	0.25	74.2	3.37	
47K	0.25	108.4	2.31	
100K	0.25	158	1.58	
220K	0.25	235	1.07	
470K	0.13	250	0.53	
1M	0.063	250	0.25	
2.2M	0.028	250	0.11	

**MARKING**

- Vishay trademark
- Model
- Style
- Ohmic value (in Ω, kΩ, MΩ)
- Tolerance (in %)
- Manufacturing date
- Marking of terminal C

**PACKAGING**

- In tube of 50 pieces code T20 (TU50)



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

Vishay Sfernice

ORDERING INFORMATION (Part Number)											
T	6	X	A	4	7	4	K	T	2	0	
Model		STYLE		OHMIC VALUE		TOLERANCE		PACKAGING		SPECIAL NUMBER	
T6		XA XB YA YB ZA ZB		From 10 Ω to 2.2 MΩ 474 = 470 kΩ		K = 10 % On request: J = 5 %		T20 = Tube 50 pieces		(If applicable) Given by Vishay for custom design	

DESCRIPTION (for information only)						
T6	XA	470K	10 %		TU	e3
MODEL	STYLE	VALUE	TOLERANCE	SPECIAL	PACKAGING	LEAD FINISH



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