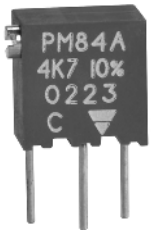
1/4" Multi-Turn Fully Sealed Container Cermet Trimmers



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

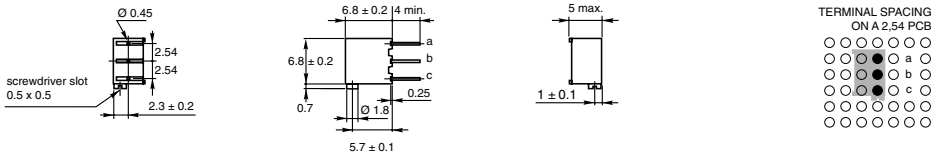
FEATURES

- Military and Professional Grade
- 0.25 Watt at 85 °C
- CECC 41 100-005 (A, B, C, D)
- Equivalent to MIL-R-22097 (RJ26)
- GAM T1
- Space saving
- Low contact resistance variation 1 % typical
- Fully sealed
- Wide range of ohmic values from 10 Ω to 2.2 MΩ
- Tests according to CECC 41 100

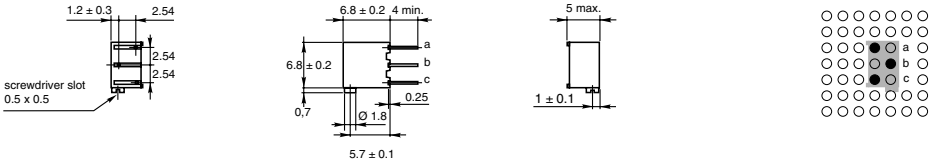
RoHS COMPLIANT

DIMENSIONS in millimeters

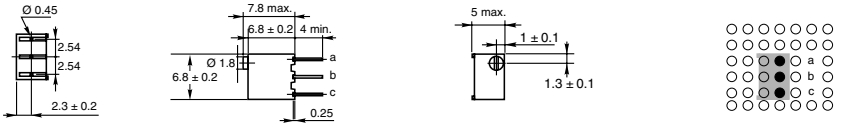
T6XA (PM 84) C



T6XB (PM 84) A



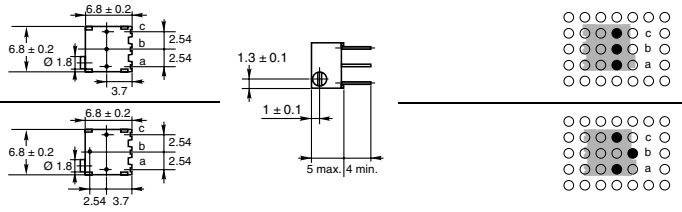
T6YA (PM 84) D



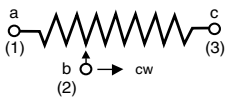
T6YB (PM 84) B

T6ZA

T6ZB



CIRCUIT DIAGRAM



Tolerance unless otherwise specified ± 0.5

Undergoes European Quality Assurance System (CECC)

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

Undergoes European Quality Assurance System (CECC)

ELECTRICAL SPECIFICATIONS

Resistive Element		cermet
Electrical Travel		13 turns ± 2
Resistance Range		10 Ω to 2.2 MΩ
Standard series E3 and Series		1 - 2.2 - 4.7 and on request 1 - 2 - 5
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

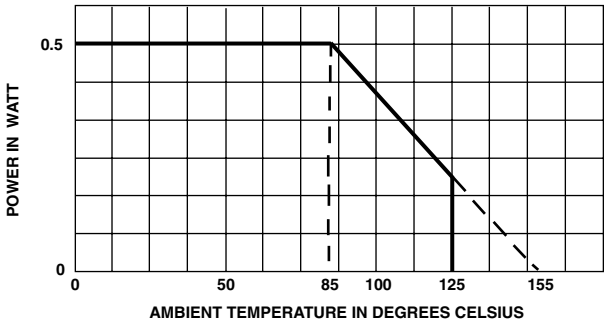
MECHANICAL SPECIFICATIONS

Mechanical Travel	15 turns
Operating Torque (max. Ncm)	1
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

POWER RATING CHART



PERFORMANCE

CECC 41100						TYPICAL VALUES AND DRIFTS	
TESTS	**CONDITIONS**	$\frac{\Delta RT}{RT}$ **(%) REQUIREMENTS**		$\frac{\Delta R_{1-2}}{R_{1-2}}$ **(%)**		$\frac{\Delta RT}{RT}$ **(%)**	$\frac{\Delta R_{1-2}}{R_{1-2}}$ **(%)**
Climatic Sequence	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 %
Long Term Damp Heat	56 days 40 °C 93 % RH	± 2 % Dielectric strength: 250 V Insulation resistance: > 100 MΩ		± 3 %		± 0.5 % Dielectric strength: 1000 V Insulation resistance: > 10^4 MΩ	± 1 %
Rotational Life	200 cycles	± 2 % Contact res. variation: < 3 % Rn				± 2 % Contact res. variation: < 1 % Rn	
Load Life	1000 h at rated power 90'/30' - ambient temp. 85 °C	± 2 % Contact res. variation: < 3 % Rn		± 4 %		± 1 % Contact res. variation: < 1 % Rn	± 2 %
Rapid Temperature Change	5 cycles - 55 °C to + 125 °C	± 1.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$	± 1 %		± 0.5 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ < ± 1 %
Shocks	50 g at 11 m secs 3 successive shocks in 3 directions	± 1 %		± 2 %		± 0.1 %	± 0.2 %
Vibrations	10 - 55 Hz 0.75 mm or 10 g during 6 hours	± 1 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$	± 2 %		± 0.1 %	$\frac{\Delta V_{1-2}}{V_{1-3}}$ < ± 0.2 %

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	0
22		2.34	107	+ 200
47		3.53	73	
100		5	50	
220		7.42	34	
470		10.8	23	
1 k		15.8	15.8	
2.2 k		23.4	10.7	
4.7 k		34.3	7.3	
10 k		50	5	± 100
22 k		74.2	3.37	
47 k		108.4	2.31	
100 k		158	1.58	
220 k	0.25	234	0.97	
470 k	0.13	250	0.53	
1 M	0.06	250	0.25	
2.2 M	0.028	250	0.11	

MARKING

Printed:
- VISHAY trademark
- model
- style
- ohmic value (in Ω, kΩ, MΩ)
- tolerance (in %)
- manufacturing date
- marking of terminal c

PACKAGING

- In magazine pack (tube) by 50 pieces code “TU50”.

ORDERING INFORMATION

T6	XA	470 kΩ	± 10 %	TU50	e3
MODEL	VERSION	OHMIC VALUE	TOLERANCE	PACKAGING	LEAD FINISH
				TU50: Tube	e3: pure Sn

SAP PART NUMBERING GUIDELINES

T	6	X	A	4	7	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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