

## 3/8" Square (10mm) Multi-Turn Cermet Trimmer



### FEATURES

- Industrial Grade
- 0.5 Watt at 70°C
- Tests according to CECC 41 000
- Good stability
- Contact resistance variation < 1% typical
- Meets MIL-R-22097 specifications

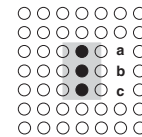
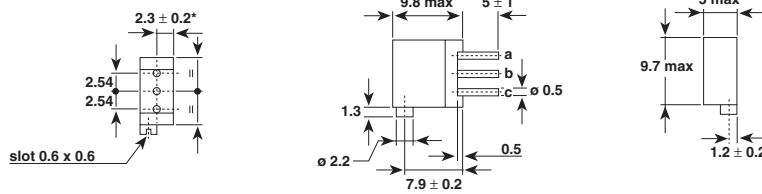


The Model 64 is a small size trimmer - 3/8" x 3/8" x 3/16" - answering PC board mounting requirements. Five versions are available which differ by the position of the control screw in relation to the PC board plane and by the spacing of the terminals. Excellent operational stability is provided by the use of a cermet element.

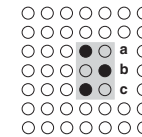
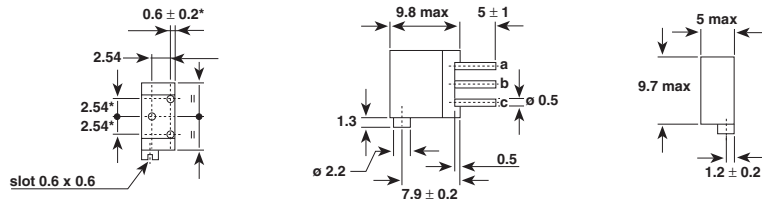
### DIMENSIONS in millimeters

### Terminal Spacing on a 2.54 PCB

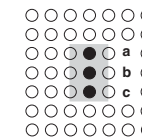
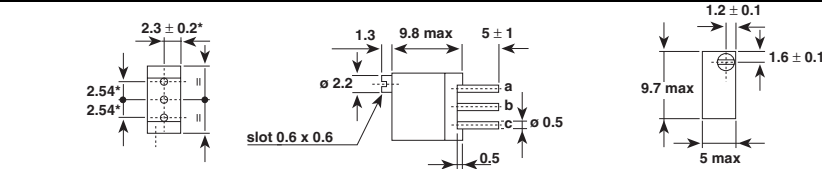
**64X**



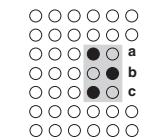
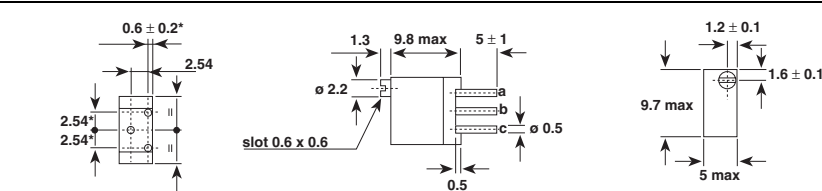
**64Z**



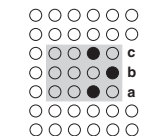
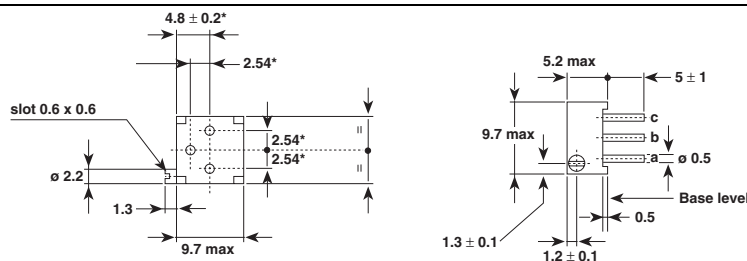
**64W**



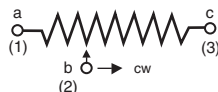
**64Y**



**64P**



### CIRCUIT DIAGRAM



\*to be measured at base level

Tolerance unless otherwise specified ± 0.5



3/8" Square (10mm)  
Multi-Turn Cermet Trimmer

Vishay Spectrol

ELECTRICAL SPECIFICATIONS		
Resistive Element		cermet
Electrical Travel		21 turns ± 2
Resistance Range		10Ω to 2.2MΩ
Standard series E3		1 - 2 - 2.5 - 5
Tolerance	Standard	± 10%
	On Request	± 5%
Power Rating	Linear	0.5W at + 70°C
	Logarithmic	not applicable
Temperature Coefficient		See Standard Resistance Element Table
Limiting Element Voltage (Linear Law)		250V
Contact Resistance Variation		2% Rn or 2Ω
End Resistance (Typical)		1Ω
Dielectric Strength (RMS)		1000V
Insulation Resistance (500VDC)		10 <sup>6</sup> MΩ

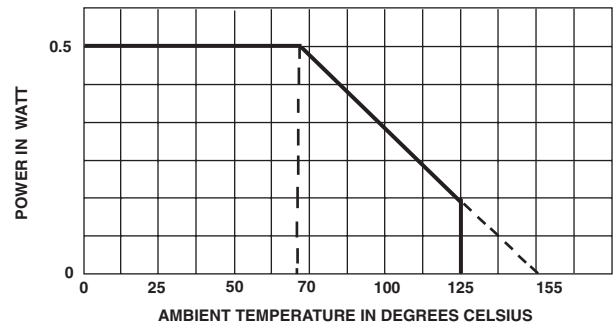
**MECHANICAL SPECIFICATIONS**

Mechanical Travel	23 turns ± 5
Operating Torque (max. Ncm)	1.5
End Stop Torque	clutch action
Net Weight	Approx. 0.82 g
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			
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 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%	± 1%
Rapid Temperature Change	5 cycles - 55°C at + 125°C	± 0.5%	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 1\%$
Shock	50 g at 11m secs 3 successive shocks in 3 directions	± 0.1%	± 0.2%
Vibration	10-55 Hz 0.75mm or 10 g during 6 hours	± 0.1%	$\frac{\Delta V_{1-2}}{V_{1-3}} \leq \pm 0.2\%$
Rotational Life	200 cycles	± 4% Contact res. variation: < 1% Rn	



STANDARD RESISTANCE ELEMENT DATA				
STANDARD RESISTANCE VALUES	LINEAR LAW			T.C. -55°C +125°C
	MAX. POWER AT 70°C	MAX. WORKING VOLTAGE	MAX. CUR. THROUGH WIPER	
Ω	W	V	mA	ppm/°C
10	0.5	2.2	224	0 +200
20	↓	3.2	158	
50		5	100	
100		7.1	71	± 100
200		10	50	
250		11.2	45	
500		15.8	32	
1k		22.4	22	
2k		31.6	16	
2.5k		35.4	14	
5k		50	10	
10k		70.7	7.1	
20k		100	5	
25k		112	4.5	
50k		158	3.2	
100K		0.5	224	
200K	0.31	250	1.3	
250K	0.25	250	1	
500K	0.125	250	0.5	
1M	0.063	250	0.25	
2M	0.031	250	0.13	

**MARKING**

- Printed:
- VISHAY trademark
  - model
  - style
  - ohmic value (in Ω, kΩ, MΩ)
  - tolerance (in %)
  - manufacturing date
  - marking of terminal 3

LEAD FINISH  
Pure Sn. Code e3

PACKAGING
- In bulk (box of 200 pieces), code B0200
- On request in tube

ORDERING INFORMATION			
<b>64</b> MODEL	<b>P</b> TERMINAL STYLE  P, W, X, Y or Z	<b>201</b> EIA RESISTANCE CODE	<b>e3</b> LEAD FINISH  e3: pure Sn

SAP PART NUMBERING GUIDELINES																												
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; border: 1px solid black; padding: 2px;">M</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">6</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">4</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">P</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">2</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">0</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">1</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">K</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">B</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">4</td> <td style="text-align: center; border: 1px solid black; padding: 2px;">0</td> <td style="text-align: center; border: 1px solid black; padding: 2px;"> </td> <td style="text-align: center; border: 1px solid black; padding: 2px;"> </td> <td style="text-align: center; border: 1px solid black; padding: 2px;"> </td> </tr> <tr> <td colspan="3" style="text-align: center;">MODEL</td> <td colspan="1" style="text-align: center;">STYLE</td> <td colspan="3" style="text-align: center;">OHMIC VALUE</td> <td colspan="1" style="text-align: center;">TOL</td> <td colspan="3" style="text-align: center;">PACKAGING CODE</td> <td colspan="3" style="text-align: center;">SPECIAL (IF APPLICABLE)</td> </tr> </table>	M	6	4	P	2	0	1	K	B	4	0				MODEL			STYLE	OHMIC VALUE			TOL	PACKAGING CODE			SPECIAL (IF APPLICABLE)		
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See the end of this data book for conversion tables																												



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