

# specification

Name: Type 3296 glass glaze premodulation  
potentiometer BAOTER

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## 1 Product standards

Type 3296 glass glaze pre-potentiometer detailed specification

GB/T15298-94

## 2 Ratings and characteristics

### 2.1 Product appearance and installation method

Installation method: insert the lead end of the potentiometer into the printed plate hole, stick it tightly, and fix it with tin welding.

Product appearance: see Appendix A.

### 2.2 Rated power consumption: 0.5w

### 2.3 Nominal resistance range and

resistance series nominal

resistance range:  $10\ \Omega \sim 5\text{M}$

$\Omega$

Resistance series: preferentially choose the E3 series in IEC63, take 1 digit valid number, namely 1, 2, 5.

### 2.4 The allowable deviation of the resistance value: $\pm 10\%$

### 2.5 Resistance temperature coefficient

$\text{TCR} \leq \pm 250 \times 10^{-6} / ^\circ\text{C}$

### 2.6 Resistor limit voltage: 300V (DC or AC effective value).

### 2.7 Limit current of moving contact: 100 mA

### 2.8 Resistance voltage (AC peak voltage with frequency of 40~60Hz) 101.3KPa: 500V

8.5KPa: 315V

### 2.9 Climate sequence: $R1100\ \text{M}\Omega \triangle R \pm (3\%R + 0.1\ \Omega)$

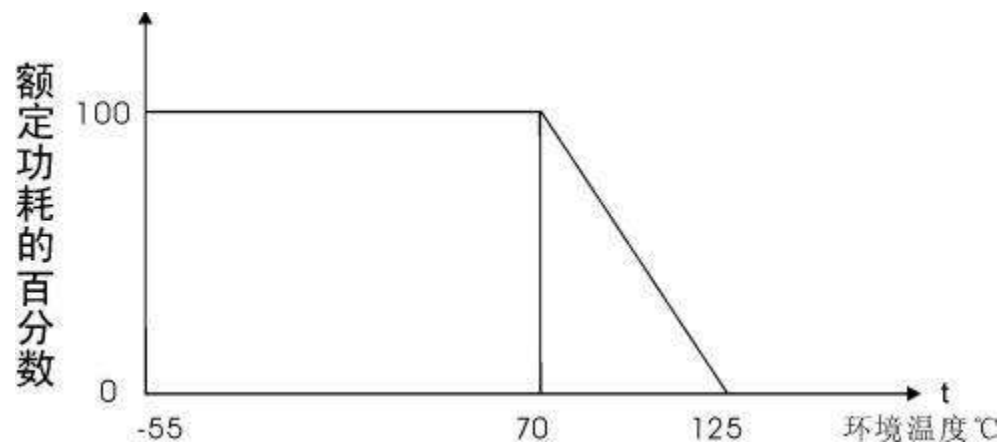
### 2.10 Welresistance heat: $265^\circ\text{C}, 3\text{s} \triangle R \pm (3\%R + 0.1\ \Omega)$

### 2.11 Total mechanical travel: $28 \pm 2$ laps

### 2.12 Starting moment: $35\ \text{mN} \cdot \text{m}$

### 2.13 Mechanical durability: 200 weeks

### 2.14 Power reduction curve



### 3 Logo

3.1 The potentiometer shall be marked with: product trademark, product model and resistance code

3.2 The potentiometer packaging label shall indicate: product trademark, product model, resistance value code, quantity, production year, month, detailed specification code, operator code and ordering unit

4. Test items (parts), test conditions and performance requirements are shown in Table 1

Table 1

GB / T15298-94 clause and test items	condition of experiment	performance requirement
4.6 Resistor resistance value		$\pm 10\%$
4.7 Terminal resistance	Rab  Rbc	2 $\Omega$ or 3%R (take the larger) 2 $\Omega$ or 3%R (take the larger)
4.5 Continuity	Use the three-use meter resistance gear to measure. The potentiometer moving contact speed is 2 to 5 weeks per minute	The resistance value variation shall be appropriately smooth and unidirectional.
4.15, and the rotational noise	With the CRV tester measurement, with a constant current Ib through the moving contact of the potentiometer, the speed of the moving contact for 2 to 5 weeks per minute	3 $\Omega$ or 3%R (take the larger)
4.32 Weldability	Slot welding method temperature: $235 \pm 5^\circ\text{C}$ Duration: $2 \pm 0.5\text{S}$	Check the lead end, the solder should be easily flowing and moisten the

		lead end
4.14 Resistance temperature characteristics (250ppm)	- 55°C/20°C 2 0°C/70°C 20 °C/125°C	$\Delta R/R \leq \pm 1.88$ $\Delta R/R \leq \pm 1.25$ $\Delta R/R \leq \pm 2.62$
4.30 Lead end strength	A 5N pull force was applied to the lead end for $10 \pm 1$ S. appearance inspection Resistor resistance value	No visible damage $\Delta R \leq \pm (3\%R + 0.1\Omega)$
4.34, and the temperature change	Adjust the potentiometer dynamic contact between 40% and 60% of the total mechanical travel	

Continuation table 1

GB / T15298-94 clause and test items	condition of experiment	performance requirement
	<p>-55℃ 30min at room temperature (2-3) min + 125℃ 30min (2-3) min at room temperature Post recovery time was 2h</p> <p>appearance inspection</p> <p>output ratio</p> <p>Resistor resistance value</p>	<p>No visible damage</p> $\Delta \leq \pm 3\% \frac{U_{ab}}{U_{ac}}$ $\Delta R \leq \pm (3\%R + 0.1 \Omega)$

<p>4.43.2 Electrical Durability at 70℃</p>	<p>The voltage of half of the samples is added between a and c; the dynamic contact of the other half is adjusted at 95% of the total electrical stroke, and the voltage is added between a and b.</p> <p>Duration of 1,000 h</p> <p>Check at 48,500, and 1000h: appearance inspection</p> <p>Resistance values between a and c</p> <p>Resistance values between a and b are checked after 1000h:</p> <p>Insulation resistance (500 Vdc) with rotational noise</p>	<p>No visible damage, with clear marks</p> $\Delta R \leq \pm (3\%R + 0.1 \Omega)$ $\Delta R \leq \pm (3\%R + 0.1 \Omega)$ $R1 \geq 1G \Omega$ $3 \Omega \text{ or } 3\%R$ <p>(take the larger)</p>
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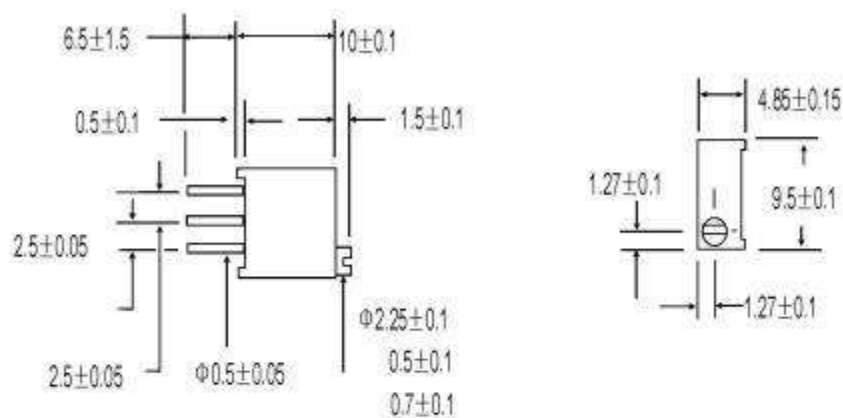
Continuation table 1

GB / T15298-94 and test items	condition of experiment	performance requirement
4.40 Mechanical Durability	Number of weeks: 200 Dynamic contact speed: 5~10 weeks per minute appearance inspection Resistor resistance value overbranch torque Turn noise	No visible damage $\Delta R \leq \pm (5\%R + 0.5 \Omega)$ $\leq 35 \text{mN} \cdot \text{m}$ $3 \Omega$ or $3\%R$ (take the larger)

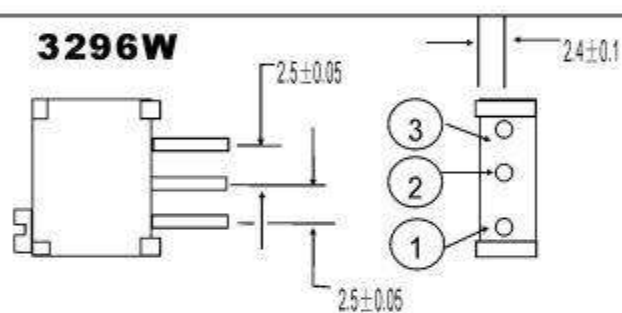


## 附录 A

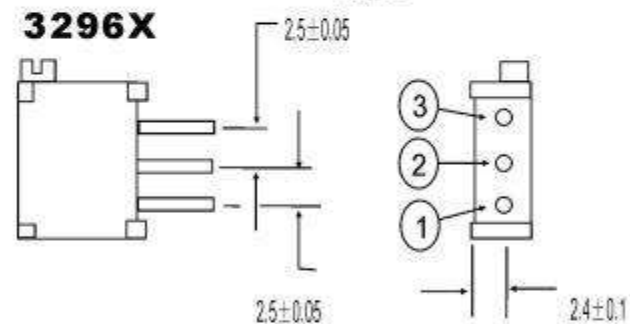
共有尺寸



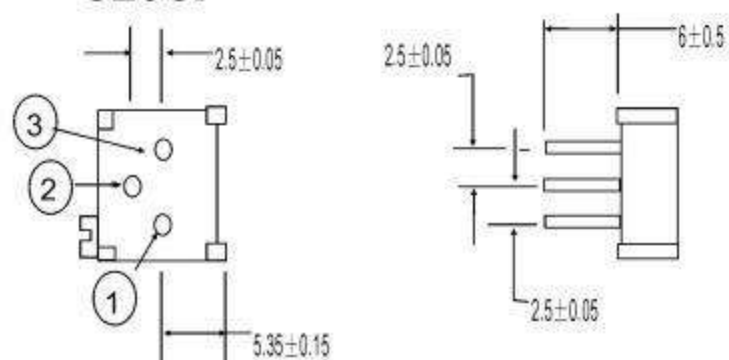
**3296W**



**3296X**

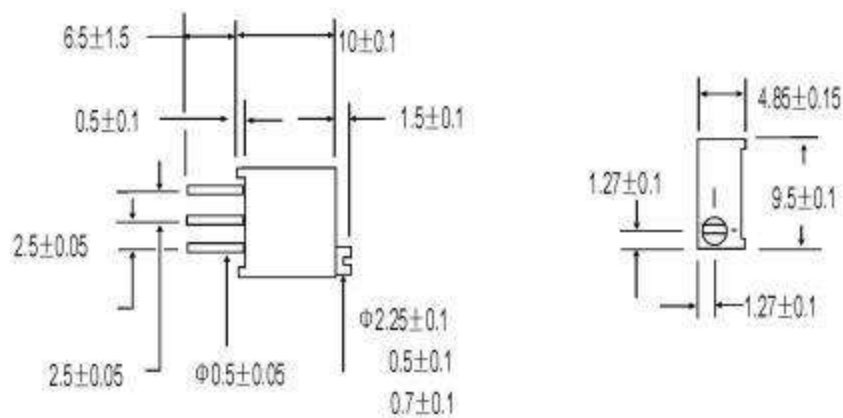


**3296P**

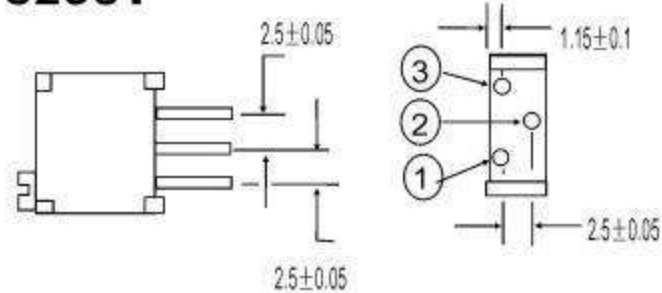


## 附录 A (续)

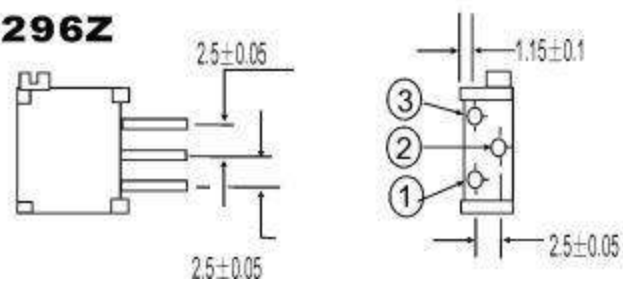
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**3296Y**



**3296Z**



# appendix B

## Precautions for use

- Because the rated power of the potentiometer means that the specified rated power when the whole resistor is connected to the circuit is applicable. If only part of the resistor is connected to the circuit, the power is allowed to be reduced according to the same proportion as the resistance value.

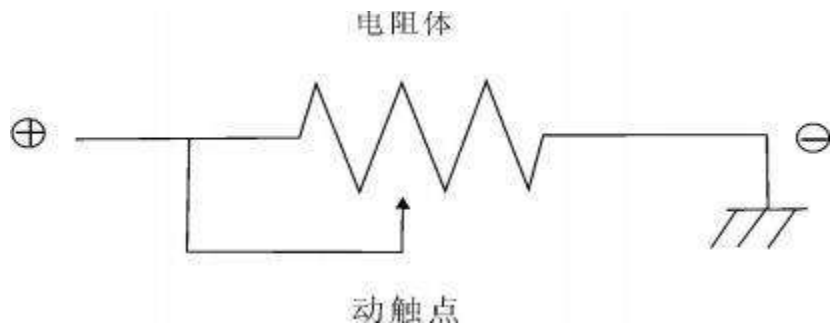
R uses the impedance value

P Allow the use of power =  $P_{\text{rated power}} \times \frac{R_{\text{nominal}}}{\text{resistance value}}$

Therefore, in order to make full use of the rated power of the potentiometer, it is suggested that when the potentiometer is used as a variable resistance, the resistance value used should be within 50%~90% of the nominal resistance value of the potentiometer.

- Eliminate anodic oxidation and prevent resistance value change

The potentiometer is used as a variable resistor (as an element at both ends). In DC operation, the anodic oxidation between the resistor and the moving contact may cause the change of the resistance value and drift. In order to effectively prevent this situation, please press the figure below to connect the moving contact of the potentiometer to the positive electrode of the circuit.



1 (3) 2

3 (1)

moving