

1 Product standards

Detailed specification of 3296 glass enamel preset potentiometers

GB/T15298-94

2 Ratings and characteristics

2.1 Product appearance and installation methods

Installation methods: the potentiometer terminals into the printed circuit board hole, snapping, soldering fixed. Product appearance: see Appendix A.

2.2 Rated power consumption: 0.5W

2.3 Nominal resistance range and resistance series

Nominal Resistance Range: 100Ω ~ 1MΩ

Resistance Series: preferred E3 series in IEC63, take a valid number, ie, 1,2,5.

2.4 Resistance tolerance: ± 10%

2.5 Temperature coefficient of resistance

(User needs, $TCR \leq \pm 100 \times 10^{-6} / ^\circ C$)

2.6 The resistor Ultimate voltage: 315V (DC or AC RMS)

2.7 Moving contact limiting current: 100mA

2.8 Withstanding voltage (frequency 40 ~ 60Hz AC peak voltage)

Under normal atmospheric pressure: 640V

Low pressure 8.5KPa (85mbar): 450V

2.9 Climatic category: 55/125/04

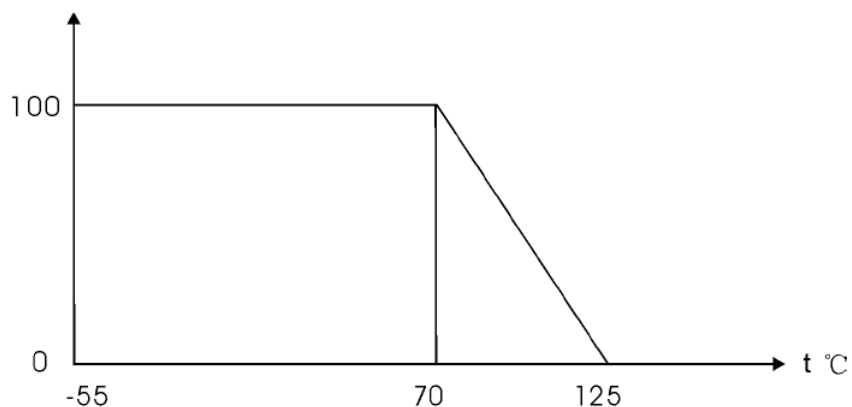
2.10 The total mechanical travel: 28 ± 2 laps

2.11 Stability class: 10%

2.12 Starting torque: ≤ 35mN m

2.13 Load wear the number of weeks: 200 weeks

2.14 Power-down curve



3 Sign

3.1 Potentiometer should be marked: product labeling, product type, resistance code

3.2 Potentiometer on the package label should be marked: product labeling, product type, resistance code, quantity, production year, month, detail specification code, operator code, ordering units

4 Pilot project (part), test conditions and performance requirements in Table 1

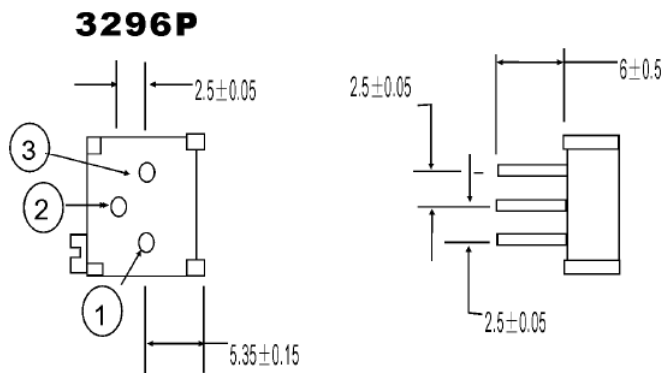
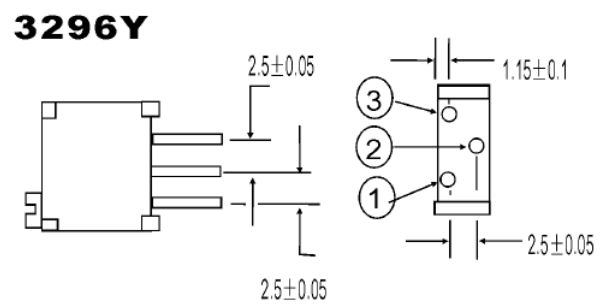
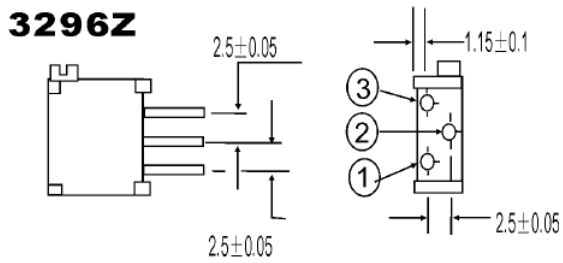
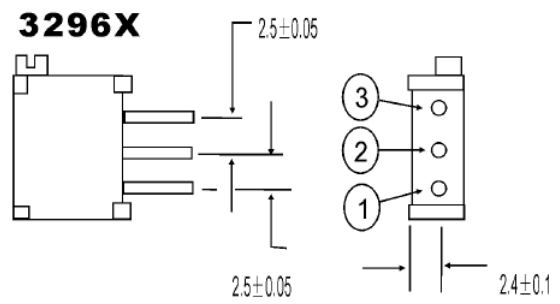
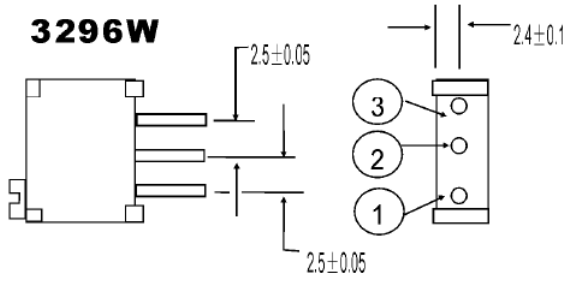
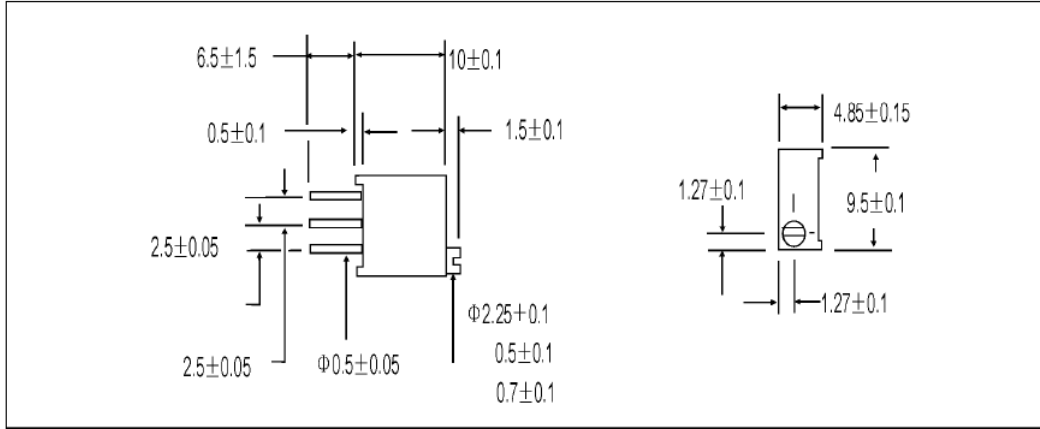
Table 1

The GB/T15298-94 Terms and pilot projects	Test conditions	Performance requirements
4.6 Resistor body resistance		$\pm 10\%$
44.7 Termination resistors	Rab Rbc	$\leq 5 \Omega$ 或 $2\%R$ (Whichever is the greater) $\leq 5 \Omega$ 或 $2\%R$
4.5 Continuity	Table with three resistance profile measurement. Potentiometer moving contact speed per minute 2 to 5 weeks	The change in resistance should be smooth And is a one-way
4.15 Rotation noise	CRV tester measurement, constant current lb speed of the moving contact of the potentiometer, fixed contacts per minute 2 to 5 weeks	$\leq 3 \Omega$ 或 $2\%R$ (Whichever is the greater)
4.32 Weldability	Groove welding method Temperature: $235 \pm 5 \text{ }^\circ\text{C}$ Duration: $2 \pm 0.5\text{S}$	Check the terminations, the solder should flow easily and wetting terminal
4.14 Resistance temperature characteristics	$-55^\circ\text{C}/20^\circ\text{C}$ $20^\circ\text{C}/70^\circ\text{C}$ $20^\circ\text{C}/125^\circ\text{C}$	$\Delta R/R \leq \pm 2.60$ $\Delta R/R \leq \pm 1.80$ $\Delta R/R \leq \pm 3.20$
4.30 Terminal Strength	Terminations imposed 5N Rally Action time $10 \pm 1\text{S}$. Visual inspection Resistor body resistance	No visible damage. $\Delta \leq \pm (5\%R + 0.1 \Omega)$
4.34 Temperature changes	Potentiometer to move the contacts to tune in between 40% and 60% of the total mechanical travel	0

Continued Table 1

The GB/T15298-94 Terms and pilot projects	Test conditions	Performance requirements
	-55 ° C to maintain time 30min Hold time (2-3) min at room temperature +125 ° C to maintain time 30min Hold time (2-3) min at room temperature Test recovery time 2h Visual inspection Output than Resistor body resistance	No visible damage. $\Delta \frac{U_{ab}}{U_{ac}} \leq \pm 5\%$ $\Delta R \leq \pm (5\%R + 0.1 \Omega)$
4.43.2 Electrical Endurance at 70 ° C	Half of the sample voltage is applied between a and c; the moving contact of the other half of the sample was adjusted to 95% of the total power trip, voltage is applied between a and b. Continuing continuing time 1000h 48,500 and 1000h to check: Visual inspection resistance between a and c resistance between a and b 1000h after examination: Insulation resistance Rotation noise	No visible damage, clear signs $\Delta R \leq \pm (10\%R + 0.1 \Omega)$ $\Delta R \leq \pm (15\%R + 0.1 \Omega)$ $\geq 1G \Omega$ $\leq 5 \Omega \text{ 或 } 3\%R$ (Whichever is the greater)
4.40 Mechanical durability	The number of weeks: 200 Moving contact per minute to 10 weeks of the speed: Visual inspection Resistor body resistance Overruns torque Rotation noise	No visible damage. $\Delta R \leq \pm (10\%R + 0.5 \Omega)$ $\leq 35mN \cdot m$ $\leq 5 \Omega \quad 3\%R$ (Whichever is the greater)

A



Appendix B

Cautions

- Due to the power rating of the potentiometer is the resistor body access to the circuit, the rated power is only applicable if only part of the resistor body access to the circuit, allowing the resistance to reduce the use of power should be the same as reducing the proportion of

$$P \text{ allows the use of power} = \frac{R \text{ using the resistance}}{R \text{ Nominal Resistance}} P \text{ rated power}$$

Therefore, in order to take full advantage of the power rating of the potentiometer, it is recommended that the potentiometer as a variable resistor, the resistance value should be used in the potentiometer nominal resistance of 50% to 90% or less.

- Eliminate a anodic oxidation, to prevent the change in resistance

Potentiometer, variable resistor (for both ends of the components), and DC work, the resistor body and the moving contact between the anode oxidation may lead to resistance to change, drift, in order to effectively prevent this, pressdiagram of the moving contact of the potentiometer connected to the positive terminal of the circuit.

