

# KINGTEK ELECTRONICS TECHNOLOGY CORP.

## STANDARD SPECIFICATION

### *6 mm Resin Carbon Film Semifixed Variable Resistors*

#### 1. GENERAL :

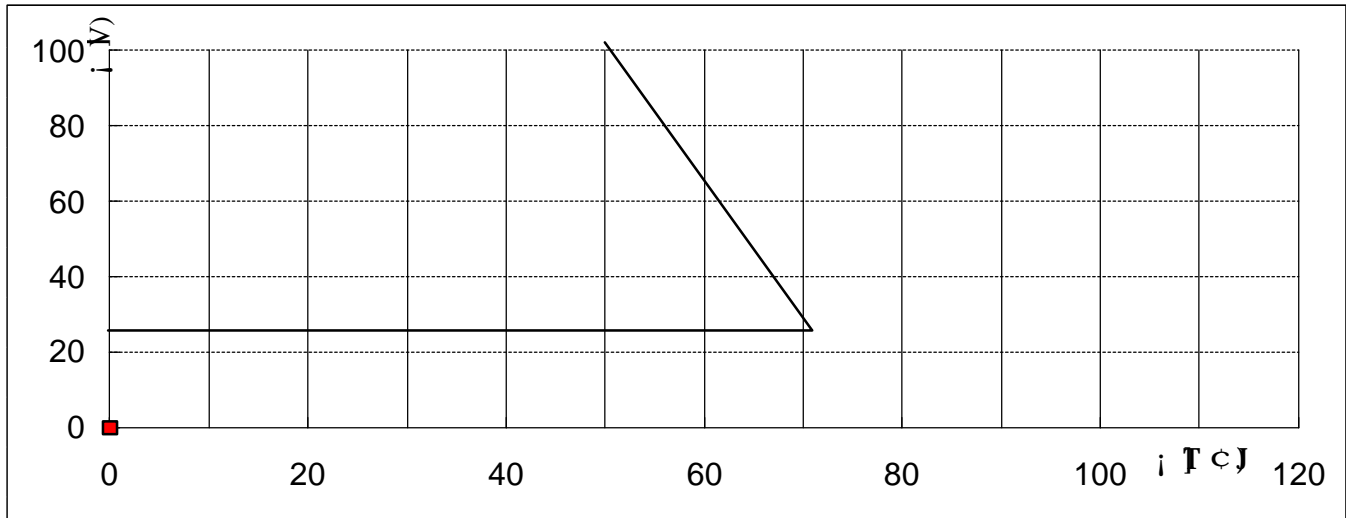
Test condition : The standard test shall be 5 ~ 35deg C temperature and 45 ~ 85% relative humidity 860 ~ 1060 Hpa atmospheric pressure unless otherwise specified. In case of any question happen, retest condition shall specify by temperature 20 +/-2deg C, 65 +/-5%RH and 860 ~ 1060 Hpa.

#### 2. ELECTRICAL CHARACTERISTIC :

ITEM	TEST DESCRIPTION	SPECIFICATION
2.1	Overall Resistance Range	100Ohm ~ 1MOhm
2.2	Resistance Tolerance	100Ohm ~ 1MOhm +/-30%
2.3	Taper	B Curve
2.4	Residual Resistance	30Ohm MAX for R=<1KOhm 3% MAX R>=1KOhm
2.5	Working Voltage	E= SQR P.R E: Working voltage (V) P: Max power rating (W) R: Overall resistance (Ohm)
2.6	Max Working Voltage	50V
2.7	Rating Power	0.1W

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### 3. MECHANICAL CHARACTERISTIC:

ITEM	TEST DESCRIPTION	SPECIFICATION
3.1	Rotation Angle	210 +/-20° X
3.2	Stopper Strength	350gf-cm min
3.3	Rotation Torque	50-250gf-cm
3.4	Terminal strength	350gf-cm min

### 4. MECHANICAL CHARACTERISTIC:

ITEM	TEST DESCRIPTION	TEST CONDITIONS	SPECIFICATION
4.1	Working Temperature		-10deg C ~ 70deg C
4.2	Rotation Life Test Without Load	20 +/-2 cycle operation at a rate of 6 sec per cycle, rotation angle beyond 90% of resistive paste area.	Resistance variation within +/-15%

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ITEM	TEST DESCRIPTION	TEST CONDITIONS	SPECIFICATION
4.3	Temperature Characteristic	SVR being kept in the condition at $70 \pm 3^\circ\text{C}$ 5HR and in a normal ambient condition for one hour then measuring	Resistance variation within +5% -20%
4.4	Temperature Cycle	<p>After 5 cycle testing under the following conditions. The sample is allowed to stand under normal temperature and humidity condition for 2 hour Then measuring. Water drops should be eliminated.</p> <p style="text-align: center;"> <math>70 \pm 5^\circ\text{C}</math>  <math>20^\circ\text{C} \pm 5^\circ\text{C}</math>  <math>-10^\circ\text{C} \pm 2^\circ\text{C}</math> </p> <p style="text-align: center;">           15 30 15 30            1 cycle 90 min         </p>	Resistance variation within $\pm 5\%$
4.5	High Temperature Test	SVR being kept in the condition at $70 \pm 3^\circ\text{C}$ 240 $\pm$ 8HR and in a normal ambient condition for 2HR and in a normal ambient condition for one hour then measuring.	Resistance variation within +5% -20%
4.6	Humidity Test Without Load	SVR for testing being kept in the conditions at $40 \pm 2^\circ\text{C}$ in temperature and 90-95%RH for 240 $\pm$ 8 hours and in a normal ambient condition for 5HR then to be measured.	Resistance variation within +5% -20%

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ITEM	TEST DESCRIPTION	TEST CONDITIONS	SPECIFICATION
4.7	Rotation Life Test With Load	SVR for testing being kept in the condition at 50+/-2deg C in temperature with working voltage to the terminal 1.5 hours then turn off 0.5 hours continuous for 240 +/- <b>8 hours</b> and in a normal ambient condition for 5HR then to be measured	Resistance variation within +5% -20%
4.8	Humidity Test With Load	SVR for testing being kept in the condition at 40+/-2deg C in temperature and 90~95%RH with working voltage to the terminal 1.5 hours then turn off 0.5 hours continuous for 350 +/- <b>10 hours</b> and in a normal ambient condition for 5HR then to be measured	Resistance variation within +/-20%
4.9	Soldering Temperature	SVR for testing terminal being dip into temperature 300 +/- <b>10deg C depth 1.5~2.0mm</b> Time: 3+/-0.5sec then in a normal ambient condition for 1 hour then to be measured.	Resistance variation within +/-3%