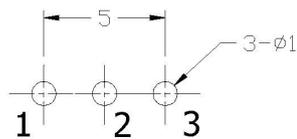
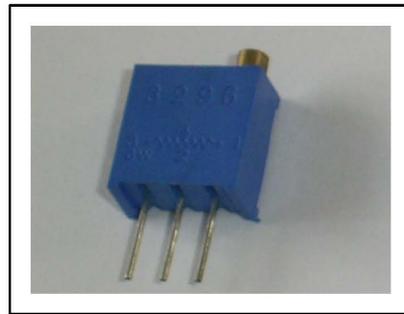


CIRCUIT DIAGRAM



MOUNTING HOLE DETAILS



| | |
|-------------------------|------|
| NO INDICATION TOLERANCE | |
| LESS THAN 10 | ±0.3 |
| ABOVE 10 TO 30 | ±0.5 |
| ABOVE 30 TO 100 | ±1 |
| ANGULAR DIMENSION | ±5° |

| | | | | | | | | |
|-----|-------------|------|----------------|------------|-------------|----|--------------|-------|
| 5 | | | PROJ. ANGLE | | UNIT | MM | FILE NAME | |
| 4 | | | DRAWN BY | CHECKED BY | APPROVED BY | | ARTICLE NO. | |
| 3 | | | CHEN. | | | | DESIGNED NO. | SCALE |
| 2 | | | | | | | | |
| 1 | | | | | | | | |
| NO. | DESCRIPTION | DATE | Jun. 2nd, 2006 | | | | | |

FLYiNG
INTERNATIONAL

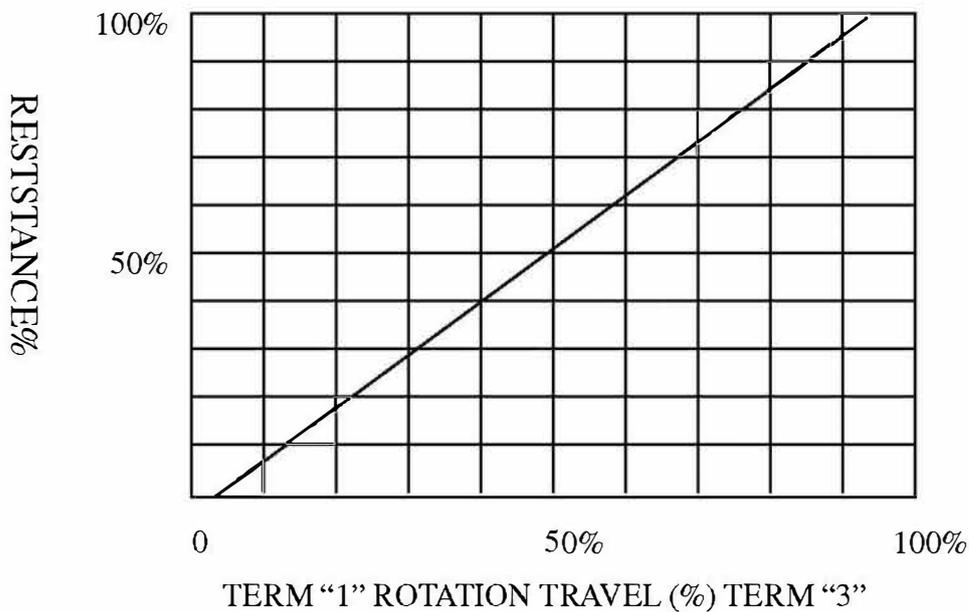
3296W

| | | |
|--------------|---------|-------|
| DRAWING NO. | EDITION | SHEET |
| DN2006060204 | | / |

3296 陶瓷系列

- ◆ Metal Shaft Rotary Potentiometer
 - ◆ TOTL RESISTANCE $10\Omega \sim 5M\Omega$
 - ◆ TOTL RESISTANCE TOLERANCE..... $\pm 10\%$
 - ◆ RESISANCE TAPERB(LIN)
 - ◆ MAX. OPERATION VOLTAGE LINEAR TAPER 300V MAX
 - ◆ RATED POWER LINEAR TAPER 0.5W
 - ◆ INSULATION RESISANCE MORE THAN $100M\Omega$ AT DC 500V
 - ◆ WITHSTAND VOLTAGE 1 MINUTE AT AC 600V
 - ◆ RESIDUAL RESISTANCE $\leq 1\%R$ or 3Ω
 - ◆ TOTAL ROTATIONAL ANGLE 28 ± 2 T
 - ◆ ROTATIONAL TORQUE 30gf.cm ~ 200gf.cm
 - ◆ ROTATIONAL STOPPER STRENGTH 1.0kgf.cm MAX.
 - ◆ PUSH-PULL STRENGTH 1kgf MAX
 - ◆ ROTATIONAL LIFE 200 CYCLES
 - ◆ OPERATION LIFE 200 CYCLES
- RESISTANCE VALUE $\pm 10\%$

TAPERS B SERIES



3296 Electrical characteristics

電氣性能

| Total resistance 總阻值 | B taper $10\Omega \sim 5M\Omega$ (Lin) | | | | | | | | | | | | | | |
|--|---|-----------|---------------|----|-----|----|----|----|----|-----|----|-----|----|-----|---|
| Total resistance tolerance 總阻值容許差 | $\pm 10\%$ | | | | | | | | | | | | | | |
| Rated power 定格電力 | $0.5W/70^{\circ}C$ $0W/125^{\circ}C$ | | | | | | | | | | | | | | |
| Temperature range 環境溫度範圍 | $-55^{\circ}C \sim 125^{\circ}C$ (附圖一) Rated power % <table border="1"> <caption>Data for Rated power % vs 周圍溫度 (°C)</caption> <thead> <tr> <th>周圍溫度 (°C)</th> <th>Rated power %</th> </tr> </thead> <tbody> <tr><td>70</td><td>100</td></tr> <tr><td>80</td><td>80</td></tr> <tr><td>90</td><td>60</td></tr> <tr><td>100</td><td>40</td></tr> <tr><td>110</td><td>20</td></tr> <tr><td>120</td><td>0</td></tr> </tbody> </table> | 周圍溫度 (°C) | Rated power % | 70 | 100 | 80 | 80 | 90 | 60 | 100 | 40 | 110 | 20 | 120 | 0 |
| 周圍溫度 (°C) | Rated power % | | | | | | | | | | | | | | |
| 70 | 100 | | | | | | | | | | | | | | |
| 80 | 80 | | | | | | | | | | | | | | |
| 90 | 60 | | | | | | | | | | | | | | |
| 100 | 40 | | | | | | | | | | | | | | |
| 110 | 20 | | | | | | | | | | | | | | |
| 120 | 0 | | | | | | | | | | | | | | |
| Max. Operating Voltage 最高耐電壓 | $300V AC$ $E: \sqrt{PR}$ E: Operating voltage P: Rated power R: Total resistance | | | | | | | | | | | | | | |
| Residual Resistance 殘留阻值 | Term 1~2 : Less than 3Ω Term 2~3 : Less than 3Ω $\leq 1\%R$ or 3Ω | | | | | | | | | | | | | | |
| Rotational noise 轉動噪音 | $150mv$ max. | | | | | | | | | | | | | | |
| Resistance temperature coefficient 電阻溫度係數 | $250ppm/^{\circ}C$ | | | | | | | | | | | | | | |

3296 電氣性能 Electrical Characteristics

| 序號 NO | 項目 ITEM | 測試條件 TEST CONDITION | 規格 SPECIFICATIONS |
|----------|-------------------------------|--|---|
| 1.1 | 絕緣阻抗 Insulation resistance | 以 DC 500V 之電壓，測試 1 分鐘測試位置端子與主軸 Test voltage: DC 500V Test position: Between terminals and the shaft for 1minute \pm 5 seconds. | 100M Ω min |
| 1.2 | 耐壓電 Withstand voltage | 以 AC600V(50~60Hz2mA)壓電，測試 1 分鐘測試位置端子與主軸 Test voltage: AC 600V (50~60Hz2mA), measured for 1minute Test position: Between terminals and the shaft 1 minute \pm 5 seconds | 不可有絕緣破壞 No dielectric breakdown shall be occurred |

機械性能 Mechanical Characteristics

| 序號 NO | 項目 ITEM | 測試條件 TEST CONDITION | 規格 SPECIFICATIONS |
|----------|--------------------------------|---|---|
| 2.1 | 操作力矩 Operating torque | -55 $^{\circ}$ C~125 $^{\circ}$ C | 30~200gf.cm |
| 2.2 | 止擋強度 Shaft stopper strength | 將主軸轉到起點或終點處，施力力矩 1kgf.cm(0.1N.m)，保持 15 秒鐘 The shaft shall be rotated to one end or the other end with pull torque 1kgf.cm(0.1N.m) for 15 seconds | 操作部和關連部不有變形破損 Without deformation or breads in the operating part and contact part |
| 2.3 | 端子強度 Strength of terminals | 於端子尖端各方向施加 500gf(5N)之力，保持 1 秒鐘 When 500gf(5N) are weighted on top of terminal in every direction for minute | 無端子鬆動損壞，端子基板破裂等 Loose stale of terminal and damage on stator board should not exist |
| 2.4 | 焊接性能 Solder ability | 焊接溫度 Soldering temperature: 240 \pm 5 $^{\circ}$ C 浸漬時間 Dipping time: 3 \pm 0.5 seconds | 除切割面外，75%以上浸焊部位被焊料覆蓋 More than 75% of the dipping part shall be covered by solder, excluding the cutting surface |
| 2.5 | 耐焊接 | 260 $^{\circ}$ C \pm 5 $^{\circ}$ C For DIP soldering in 3 seconds 350 $^{\circ}$ C \pm 5 $^{\circ}$ C For manual soldering in 3 seconds | 無端子鬆動損壞，端子基板破裂等 Loose stale of terminal and damage on stator board should not exist |

3296 耐候性 Weather Performance

| 序號 NO | 項目 ITEM | 測試條件 TEST CONDITION | 規格 SPECIFICATIONS |
|-------|----------------------|---|--|
| 3.1 | 耐濕度 Humidity Test | 置於溫度 $40\pm 2^{\circ}\text{C}$ ，溼度 90~95%RH，500 小時後，放於正常環境下 1 小時，然後 1 小時內測試 Testing switch being kept in the conditions at $40\pm 2^{\circ}\text{C}$ and 90~95%RH for 500 hours in a normal ambient condition for 1 hour. Then to be measured within 1 hour. | 絕緣電阻在 $10\text{M}\Omega$ 以上，500V DC，耐壓 AC600V 持續 1 分鐘操作力矩變化在 30%之內各部位無損壞，無機械性能異常電阻值變化 $\pm 10\%$ 以內 Insulation resistance: more than $10\text{M}\Omega$ for 500VDC Withstand voltage: 600V AC for 1 minute Operating torque: within $\pm 30\%$ of initial value Every parts should not defected in appearance and mechanical performance. Resistance $< \pm 10\%$ |
| 3.2 | 耐熱性 Heat Test | 置於溫度 $125\pm 2^{\circ}\text{C}$ ，500 小時後，放於正常環境下 1 小時，然後在 1 小時內測試 Testing switch being kept in the conditions at $125\pm 2^{\circ}\text{C}$ in temperature for 500 hours in a normal ambient condition for an hour. The to be measured within hour. | |
| 3.3 | 低溫特性 Cold Test | 置於溫度 $-55\pm 2^{\circ}\text{C}$ ，500 小時後，放於正常環境下 1 小時，然後在 1 小時內測試 Testing switch should be kept in the condition in the temperature of $-55\pm 2^{\circ}\text{C}$ for 500 hours in a normal ambient condition for an hour. Then be measured within an hour. | |

耐久性 Durability

| 序號 NO | 項目 ITEM | 測試條件 TEST CONDITION | 規格 SPECIFICATIONS |
|-------|--|---|---|
| 4.1 | 壽命(無負荷) Life Test (Without Load) performance. Resistance $< \pm 1.0\%$ | 無負荷狀態連續測試，速度為 6~10 回/分，總次數為 200 次 200cycles of operation shall be performed continuously at the rate of 6~10 cycles/minute without load. | 絕緣電阻在 $10\text{M}\Omega$ 以上，500VDC，耐壓 AC600V 持續 1 分鐘，操作力矩變化在 30%之內各部無損壞，無機械性能異常 Insulation resistance: more than $10\text{M}\Omega$ for 500VDC. Withstand voltage: 600VAC for 1 minute Operating torque: within $\pm 30\%$ of initial value Every parts should not defected in appearance and mechanical performance |