

**1. 安全認證:****Safety Standard:****2. 接點規格:****Contact Specification:**

- 2.1 接點間隙: 最小 0.15 mm。  
Contact Gap: 0.15 mm Minimum.
- 2.2 接點阻抗: 初始值最大 100mΩ ;  
Contact Resistance: 流通電流 100mA、開路測試電壓: 6VDC ;  
使用電壓下降法量測。  
Maximum 100mΩ at initial value.  
Test Current: 100mA, Open Circuit Test Voltage: 6VDC.  
By using Voltage Drop Method.
- 2.3 接點容量: 125VAC Cos  $\varphi=1$  , 可通過電流為 3 安培。  
Contact Capacity: 24VDC Cos  $\varphi=1$  , 可通過電流為 3 安培。  
3Amps at 125VAC Cos  $\varphi=1$ .  
3Amps at 24VDC Cos  $\varphi=1$ .

**3. 攝氏 20 度之線圈規格:****Coil Specification at 20 °C:**

- 3.1 額定電壓: 5VDC.  
Rated Voltage:
- 3.2 額定電流: 40mA  $\pm$  10% at 50 Hz.  
Nominal Current:
- 3.3 額定消耗功率: 0.2 W  $\pm$  10%.  
Rated Power Consumption:
- 3.4 感動電壓:  $\leq$  DC 3.75V (當電壓漸漸施加於繼電器時接點之動作電壓, 為額定電壓之 75%)  
Pull In Voltage:  $\leq$  DC 63.75V (Contact operating voltage when voltage is gradually applied. It is 75% of the Rated Voltage)
- 3.5 開放電壓:  $\geq$  DC 0.25V (當額定電壓漸漸的減少時接點放開之電壓, 為額定電壓之 5%)  
Drop Out Voltage:  $\geq$  DC 0.25V (Contact breaking voltage when rated voltage is gradually reduced. It is 5% of the Rated Voltage)
- 3.6 最大應加電壓: DC 6.50V (為額定電壓之 130%)  
Max. Allowable Voltage: DC 6.50V (130% of the Rated Voltage)
- 3.7 線圈阻抗: 125  $\Omega$   $\pm$  10%.  
Coil Resistance:
- 3.8 動作時間: 在施加定額電壓時最大為 8 milliseconds。  
Operate Time: 8 milliseconds Maximum when rated Voltage is applied.
- 3.9 開放時間: 在定額電壓突然消失時最大為 4 milliseconds。  
Release Time: 4 milliseconds Maximum when rated Voltage is suddenly cut off.

**3.10 線圈溫升:**

Coil Temperature Rise:

在空載時線圈施加最大可允許電壓，待溫度穩定後量測的溫度不可超過 40 °C。(不包含環境溫度)

40 °C Maximum.

Maximum Allowable Voltage is applied to Coil while no load should be applied to Contacts, then the temperature should be measured when the value is stabilized. Environment temperature should not be included in.

**4. 電氣特性:****Electrical Characteristics:****4.1 使用壽命:**

Life Expectancy:

**4.1.1 電氣壽命:**

Electrical Life:

3A/125VAC Cos  $\varphi=1$ ，施加額定電壓時，有 50,000 次以上之電氣壽命。3A/24VDC Cos  $\varphi=1$ ，施加額定電壓時，有 50,000 次以上之電氣壽命。50,000 operations Minimum at 3A/125VAC Cos  $\varphi=1$ .50,000 operations Minimum at 3A/24VDC Cos  $\varphi=1$ .

Rated Voltage is applied.

**4.1.2 機械壽命:**

Mechanical Life:

在無負載的情況下有 10,000,000 次以上之機械壽命。

10,000,000 operations Minimum at No Load condition.

**4.1.3 最大操作頻率**Maximum Operating  
Frequency:

電氣: 每分鐘 6 次。

機械: 每分鐘 300 次。

Electrical: 6 operations/minute.

Mechanical: 300 operations/minute.

**4.2 絕緣耐壓:**

Dielectric Strength:

**4.2.1 接點對接點間:**

Between Contacts:

500VAC，50/60 Hz，漏電流小於 5mA，持續一分鐘。

500VAC at Test Frequency 50/60 Hz, Leakage Current: 5mA for 1 minute.

**4.2.2 線圈對接點間:**Between Coil &  
Contact:

500VAC，50/60 Hz，漏電流小於 5mA，持續一分鐘。

500VAC at Test Frequency 50/60 Hz, Leakage Current: 5mA for 1 minute.

**4.3 絕緣阻抗:**

Insulation Resistance:

在施加 500VDC 絕緣阻抗之量測值需  $\geq 100 \text{ M}\Omega$ 。 $\geq 100 \text{ M}\Omega$  Minimum.

A Voltage of 500VDC should be applied after which measurement shall be made.

**4.4 震動測試:**

Vibration

**Electronic****4.4.1 耐震性 I:  
Endurance I:**

在無激磁狀態下雙振幅寬度為 1.5mm，震動頻率在一分鐘內由 10HZ~55HZ~10HZ。XYZ 各方向各進行 2 小時，共六小時，實驗後外觀構造不可異常，且電氣功能需符合規格之要求。

The Coil shall be maintained under not energized condition, double amplitude 1.5 mm, the entire frequency range changes from 10 to 55 Hz then returns to 10 Hz shall be made in 1 minute. This motion shall be applied for a period of 2 hours in each of 3 mutually perpendicular axis (a total of 6 hours) There should not be any deformations in construction and in appearance, while the Electrical Specifications should be fulfilled after the test.

**4.4.2 耐震性 II (誤動作):  
Endurance II (Error  
Operation):**

在激磁狀態下雙振幅寬度是 1.5mm，震動頻率在一分鐘內由 10HZ~55HZ~10HZ。XYZ 各方向進行 5 分鐘，實驗中不得有誤(接點斷開時間不可超過 1 mS)。實驗後外觀，構造不可異常，且電氣功能需符合規格之要求。

The Coil shall be maintained under energized condition, double amplitude 1.5 mm, the entire frequency range changes from 10 to 55 Hz then returns to 10 Hz shall be made in 1 minute. This motion shall be applied for a period of 5 minutes in 3 mutually perpendicular axis. Malfunction is not allowed during the test (contact breaking time should be less than 1 millisecond) In addition, there should not be any deformations in construction and in appearance while the Electrical Specifications should be fulfilled after the test.

**4.5 衝擊測試:  
Shock:****4.5.1 耐衝擊性 I:  
Endurance I:**

在無激磁狀態加速度 1000m/s<sup>2</sup> 衝擊情況下，XYZ 各方向進行 5 次，實驗後外觀，構造不可異常，且電氣功能需符合規格之要求。

Peak Acceleration: 1000m/s<sup>2</sup>

The Coil shall be maintained under not energized condition, 5 successive shocks shall be applied in 3 mutually perpendicular axis. There should not be any deformations in construction and in appearance while the Electrical Specifications should be fulfilled after the test.

**4.5.2 耐衝擊性 II (誤動作):  
Endurance II (Error  
Operation):**

在激磁狀態加速度 100m/s<sup>2</sup> 衝擊情況下，XYZ 各方向進行 2 次，實驗中不得有誤(接點斷開時間不可超過 1 mS)，實驗後外觀，構造不可異常，且電氣功能需符合規格之要求。

Peak Acceleration: 100m/s<sup>2</sup>

The Coil should be maintained under energized condition, 2 successive shocks shall be applied in 3 mutually perpendicular axis. Malfunction is not allowed during the test (contact breaking time should be less than 1 millisecond) In addition, there should not be any deformations in construction and in appearance while the Electrical Specifications should be fulfilled after the test.

**5. 環境特性:  
Environmental  
Characteristics:****5.1 溫度範圍:  
Temperature Range:**

**Electronic**

- 5.1.1 使用溫度範圍: -25 to + 85°C。  
Operating Temperature Range: 使用溫度範圍是代表繼電器在線圈之動作電壓範圍內可以持續動作的溫度範圍(在低溫時無水滴凝結現象)  
Operating temperature range is the range of ambient temperature of which the Relay can be operated continuously within operative voltage range of coil (no condensation of water drops under low temperature condition)
- 5.1.2 儲存溫度範圍: -40 to + 85°C。  
Storage Temperature Range: 儲存溫度範圍是代表繼電器在沒有損傷的情況下可以被儲存的溫度範圍(在低溫時無水滴凝結現象)。儲存的情況在本 SPEC 其他地方所示。  
Storage temperature range is the range of ambient temperature of which the Relay can be stored without damages (no condensation of water drops under low temperature condition). Conditions are as specified elsewhere in these specifications.
- 5.2 溼度範圍: 45~85% RH.  
Humidity Range:
- 5.3 耐寒性:  
Cold Resistance:
- 5.3.1 使用耐寒性: 繼電器不給予電壓或電流狀態下，在恆溫箱以  $-25 \pm 2^{\circ}\text{C}$  的溫度連續保持 2 小時。保持原狀態操作回路上給予定格電壓實驗時繼電器動作要正常。  
Cold Resistance in Use: (在低溫時無水滴凝結現象)  
Relay should be kept in temperature chamber at  $-25 \pm 2^{\circ}\text{C}$  for two hours that no current or voltage shall be supplied to Relay. Such condition shall be maintained while the rated voltage is supplied to Relay, then the Relay shall operate normally. (No condensation of water drops under low temperature condition)
- 5.3.2 儲存耐寒性: 繼電器在恆溫箱以  $-40 \pm 2^{\circ}\text{C}$  的溫度連續保持 72 小時。接著，於常溫常濕中消除水滴 1 至 2 小時以後，進行構造，動作，及絕緣阻抗，耐壓的測試，結果需要符合 SPEC。(在低溫時無水滴凝結現象)  
Storage Cold Resistance: Relay should be kept in temperature chamber at  $-40 \pm 2^{\circ}\text{C}$  for 72 hours. Then the Relays shall be maintained at standard atmospheric condition for 1 to 2 hours after which measurement shall be made. Construction, Relay operation, Insulation Resistance and Dielectric Strength shall satisfy the specification requirements. (No condensation of water drops under low temperature condition)
- 5.4 耐熱性:  
Heat Resistance:
- 5.4.1 使用耐熱性: 繼電器操作回路提供定格電壓，在接點部份提供定格電流的狀態下，在恆溫箱以  $55 \pm 2^{\circ}\text{C}$  的溫度連續保持 2 小時後，保持原狀態進行繼電器動作之測試，結果必須符合 SPEC。  
Heat Resistance in Use: Relay should be kept in temperature chamber at  $55 \pm 2^{\circ}\text{C}$  for two hours that rated Voltage should be supplied to Coil while rated Current should be supplied to Contacts. Such condition shall be maintained while the rated voltage is supplied to Relay, then Relay shall operate normally.

**Electronic****5.4.2 儲存耐熱性:  
Storage Heat  
Resistance**

繼電器在恆溫箱以  $70 \pm 2^\circ\text{C}$  的溫度連續保持 16 小時，在常溫，常濕狀態下，放置 1-2 小時後，進行構造，動作，及絕緣阻抗，耐壓的測試，結果需要符合 SPEC。

Relay should be kept in temperature chamber at  $70 \pm 2^\circ\text{C}$  for 16 hours. Then the Relays shall be maintained at standard atmospheric condition for 1 to 2 hours after which measurement shall be made.

Construction, Relay operation, Insulation Resistance and Dielectric Strength shall satisfy the specification requirements.

**5.5 耐濕性:  
Moisture Resistance:**

繼電器以溫度  $40 \pm 2^\circ\text{C}$  相對溫度在 90~95% 環境下連續保持 48 小時，接著，於常溫常濕放置 1-2 小時後，進行構造，動作，及絕緣阻抗，耐壓的測試，結果需要符合 SPEC。

Relay should be kept in temperature chamber at  $40 \pm 2^\circ\text{C}$  (90~95% RH) for 48 hours. Then the Relays shall be maintained at standard atmospheric condition for 1 to 2 hours after which measurement shall be made. Construction, Relay operation, Insulation Resistance, Dielectric Strength shall satisfy the specification requirements.

**6. 端腳特性:  
Terminal Characteristics:****6.1 端腳強度:  
Terminal Strength:**

在水平方向負重 300 公克持續 1 分鐘，測試完成後端腳不能有任何的鬆脫或是彎曲。

A load of 300g should be applied to the Terminal for one minute in horizontal direction. There should not be any looseness or bending of Terminals.

**6.2 沾錫測試:  
Soldering Dip Test:**

溫度  $230 \pm 5^\circ\text{C}$ ，時間  $3 \pm 0.5$  秒，浸漬端子前端 3mm，須沾錫面積需達 90% 以上。

The front 3 mm of Terminal should be immersed for  $3 \pm 0.5$  seconds at  $230 \pm 5^\circ\text{C}$ . Soldered area must be minimum 90% of the soldering surface.

**6.3 沾錫耐熱性:  
Soldering Heat Resistance:**

當端腳浸到  $350^\circ\text{C}$  的錫爐內 3 秒鐘時，繼電器必須能符合所有的電氣與機械規格之要求，且外觀不會有改變。

When the Terminal are immersed into soldering bath at  $350^\circ\text{C}$  for 3 seconds, the Relay shall satisfy all electrical and mechanical specifications and must not have excessive change in outside appearance.

**7. 抽樣檢查標準:  
Sample Test Method:**

美軍 MIL-STD-105E 之抽樣標準中，以一般檢查水準 II 級 AQL – 0.4 為依據。

MIL-STD-105E Level – General II, AQL 0.4.

8. 產品編號方式:  
Ordering Information:

BSZ6	-	SS	-	1	05	L	M
							<p><b>接點形式:</b> 無表示:常開常閉點均使用 M: 只使用常開接點 B: 只使用常閉接點</p> <p><b>Contact Form:</b> Nil: Chang-Over Contact M: Make Contact Only B: Break Contact Only.</p>
						<p><b>線圈形式:</b> L: DC 一般感度線圈</p> <p><b>Coil Type:</b> L: Standard DC Coil</p>	
					<p><b>線圈電壓:</b> <b>Coil Voltage:</b> 3V, 5V, 6V, 9V, 12V, 24V</p>		
				<p><b>開關組數:</b> 1: 一組開關</p> <p><b>Number of Poles:</b> 1: One Pole.</p>			
		<p><b>密封方式:</b> SS:密封型</p> <p><b>Type of Sealing:</b> SS: Flow Solder Type.</p>					
							<p><b>繼電器品名:</b> <b>Model Name:</b> BSZ6</p>

外形脚位图:

