

**1. 適用範圍 / SCOPE**

此份規格書涵蓋 MSTJ0402/0603/0805/1206-series 金屬板零歐姆跳線電阻元件相關規格。

This specification covers MSTJ0402/0603/0805/1206-series , which are Metal Strip Zero Ohm Jumper Resistor.

**2. 產品型號 / TYPE NUMBER**

<b>MSTJ</b>	<b>0402/0603/0805/1206</b>
(1)	(2)

(1) 產品系列號 / SERIES NUMBER :

MSTJ = 金屬板 / Metal plate ; 短電極 / short electrode ;  
兩端子 / two terminal ; 跳線 / Jumper

(2) 產品尺寸 / size : 0603: "0.06×0.03" ; 1206: "0.12×0.06"

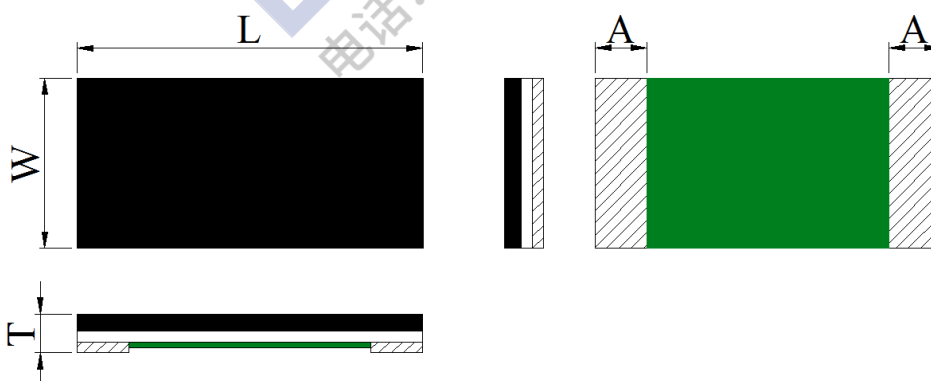
**3. 產品尺寸 / PRODUCT DIMENSIONS**


圖 1 / Fig.1

Unit(mm)

Part Number	W	L	T	A
MSTJ0402	0.50±0.20	1.00±0.20	0.30±0.15	0.20±0.15
MSTJ0603	0.80±0.20	1.60±0.20	0.35±0.20	0.35±0.20
MSTJ0805	1.25±0.20	2.00±0.20	0.40±0.20	0.35±0.20
MSTJ1206	1.60±0.20	3.20±0.20	0.40±0.20	0.50±0.20

4. 產品特性及信賴性測試規範 / PRODUCT CHARACTERISTICS AND RELIABILITY TEST STANDARD

測試方法 Parameter	條件 Conditions	允收標準 Requirements
高溫測試 / High Temp. Exposure	T = +150±2°C ; t = 1000h	< Rmax IEC60115-1 4.25
低溫測試 / Low Temp. Storage	T = -55±2°C ; t = 1000h	< Rmax IEC60115-1 4.25
濕度負載壽命測試 / Moisture Load Life (60°C, 95%RH)	Vtest = Vmax ; T=60±2°C ; RH=95% ; t= 90min ON , 30min OFF , 1000h	< Rmax IEC60115-1 4.25
冷熱衝擊測試 / Thermal Shock	[-55°C 30min. → R.T. 3min. → +150°C 30min. → R.T. 3min ], 100 個連續循環 / 100Cycles	< Rmax IEC60115-1 4.19
在 70°C 下負載壽命測試 / Load Life at 70°C	Vtest = Vmax ; T=70±2°C ; t= 90min ON , 30min OFF , 1000h	< Rmax IEC60115-1 4.25
可焊性測試 / Solderability	浸入錫爐 / Dip into solder at T = 245±5°C , t = 3±0.5sec.	錫涵蓋面積 / The covered area >95% IEC60115-1 4.17
抗焊熱性測試 / Resistance to Solder Heat	經熱風式迴焊爐 / Through Reflow T= 275±5°C , t=20±1sec.	< Rmax IEC60115-1 4.18

5. 電氣特性 / ELECTRICAL CHARACTERISTICS

Part Number	Rmax (mΩ)	I <sub>max</sub> (A)	Ri (MΩ)	Ta (°C)
MSTJ0402	0.5	20	>100	105
MSTJ0603	0.2	26	>100	105
MSTJ0805	0.2	35	>100	105
MSTJ1206	0.2	40	>100	105

實際使用 I<sub>max</sub> 依據焊墊設計決定 / Practiced I<sub>max</sub> is based on pad layout

5-1. R<sub>max</sub> : 元件在室溫下的最大電阻值 / Device maximum resistance

5-2. I<sub>max</sub> : 元件在 105°C 下的最大工作電流 / Max. Current allowed in circuit at 105°C

5-3. Ri : 防焊層與電阻本體間的絕緣電阻 / Insulation resistance between protective layer and resistive element

5-4 Ta : 額定周圍環境溫度 / Rated ambient temperature

6. 環境特性 / ENVIRONMENTAL CHARACTERISTIC

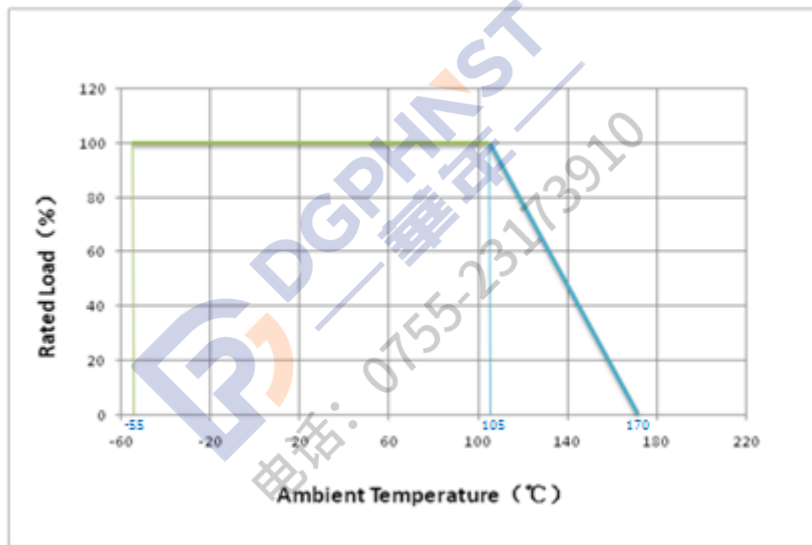
6-1 操作溫度範圍: -55°C ~ 170°C / Operating Temperature: -55°C ~ 170°C

額定功率溫度衰變曲線 / Typical Thermal Derating Curve

額定功率乃指於 105 °C 以內可連續滿額功率使用的術語。

下圖為當操作溫度高於 105°C 時的可使用功率衰減曲線。

Power rating is based on continuous full load operation at rated ambient temperature of 105 °C. For resistors operated at ambient temp. in excess of 105 °C, the max. load shall be derated in accordance with the following curve.



6-2 存儲條件 / STORAGE CONDITIONS

在溫度+10°C ~ 40°C、相對濕度 ≤ 75% 的密閉條件下可存放2年。 /

Under airtight in temperature +10°C ~ 40°C、relative humidity ≤ 75% can store 2 years.

在溫度+10°C ~ 60°C、相對濕度為95%的非露天下最多可存放30天。 /

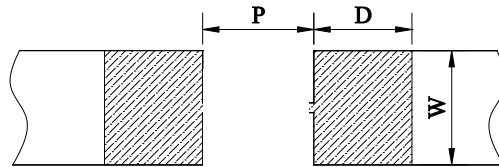
Without dew in temperature +10°C ~ 60°C、relative humidity be 95% maximum value for 30days.

7. 焊錫墊尺寸及焊接條件 / SOLDER PAD SIZE AND WELDING CONDITIONS

7.1 建議如下圖焊接方式焊接，並滿足所要求的尺寸。 / Propose that the following picture installation way is installed, and satisfied the required size.

Part Number	P	W	D	t	Loading
MSTJ0402	0.40mm	0.60mm	0.60mm	105μ	0.2w
MSTJ0603	0.60mm	0.92mm	1.30mm	105μ	0.135w
MSTJ0805	0.80mm	1.44mm	1.40mm	105μ	0.245w
MSTJ1206	1.20mm	1.84mm	1.80mm	105μ	0.32w

t : 元件焊墊金屬層厚度 (min.) / Thickness of pad metal (min.)  
loading : 適用於本司建議焊墊設計並使用於限定穩定電流下 /  
suit for specific pad layout and specific steady current



## 7.2 建議客戶焊接參數 / Recommended Customer Soldering Parameters

### 7.2.1 回流焊溫度曲線 / Solder reflow Temperature condition (圖 3 / Fig.3)

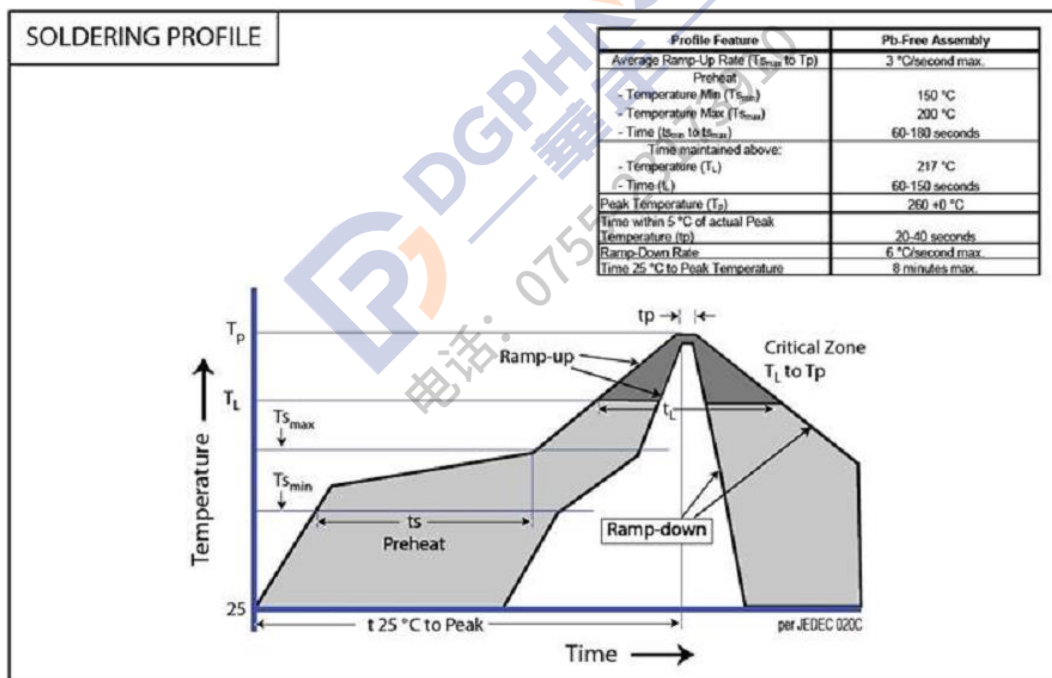


圖3 / Fig.3

7.2.2 允許烙鐵焊接條件(熱風設備) / Rework temperature (hot air equipment) : 350°C, 3~5seconds

7.2.3 焊接方法建議 / Recommended reflow methods

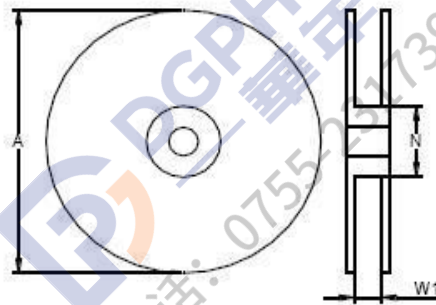
焊接熱源方式可用紅外線, 熱蒸氣, 熱風. / IR, vapor phase oven, hot air oven  
如果焊錫溫度超過允許最高溫度, 則產品本身會有功能損壞的疑慮. / If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

## 8. 包裝訊息 / PACKAGING INFORMATION

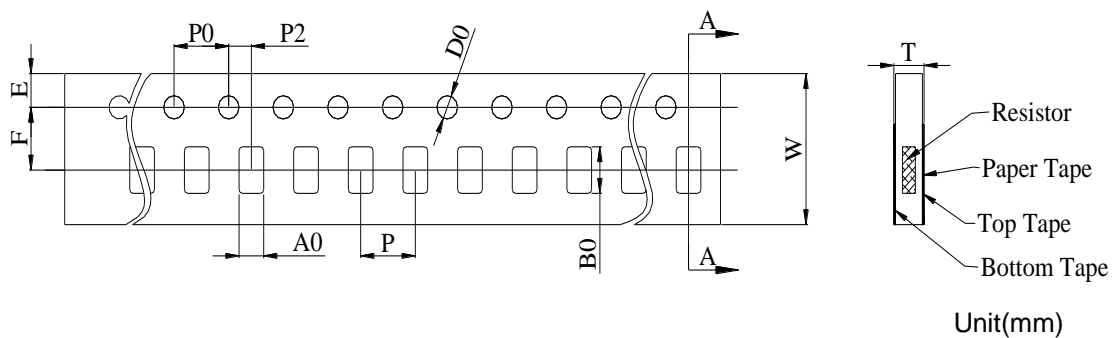
### 8.1 包裝數量、重量 / QUANTITY & WEIGHT

型號 / Type Number	數量 / Quantity (pcs)	重量 / Weight (g)
MSTJ0402	10,000	100±30
MSTJ0603	5,000	140±30
MSTJ0805	5,000	160±30
MSTJ1206	5,000	180±30

## 8.2 捲輪規格 / Reel & Tape specifications



型號 / Type Number	A±5 (mm)	N±2 (mm)	W1±1 (mm)
MSTJ0402	178	60	9.0
MSTJ0603	178	60	9.0
MSTJ0805	178	60	9.0
MSTJ1206	178	60	9.0



MSTJ0402							
W	8.00 ± 0.30	P0	4.00 ± 0.10	P	2.00 ± 0.10	P2	2.00 ± 0.10
A0	0.65 ± 0.10	B0	1.10 ± 0.10	D0	1.50 ± 0.10	F	3.50 ± 0.10
E	1.75 ± 0.10	T	0.42 ± 0.05	/	/	/	/

MSTJ0603							
W	8.00 ± 0.30	P0	4.00 ± 0.10	P	4.00 ± 0.10	P2	2.00 ± 0.10
A0	0.98 ± 0.10	B0	1.85 ± 0.10	D0	1.50 ± 0.10	F	3.50 ± 0.10
E	1.75 ± 0.10	T	0.60 ± 0.05	/	/	/	/

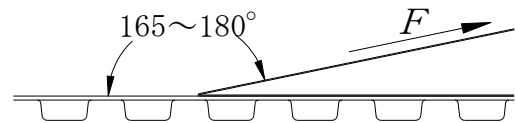
MSTJ0805							
W	8.00 ± 0.30	P0	4.00 ± 0.10	P	4.00 ± 0.10	P2	2.00 ± 0.10
A0	1.55 ± 0.10	B0	2.30 ± 0.10	D0	1.50 ± 0.10	F	3.50 ± 0.10
E	1.75 ± 0.10	T	0.75 ± 0.10	/	/	/	/

MSTJ1206							
W	8.00 ± 0.30	P0	4.00 ± 0.10	P	4.00 ± 0.10	P2	2.00 ± 0.10
A0	2.05 ± 0.20	B0	3.65 ± 0.20	D0	1.50 ± 0.10	F	3.50 ± 0.10
E	1.75 ± 0.10	T	0.75 ± 0.10	/	/	/	/

### 8.3 密封膠膜剝離強度要求 / Peeling Strength of Seal Tape

F = 剝離強度 : 0.1 – 1.0N ( 10 - 100gf )

F = Peeling Strength: 0.1 – 1.0N ( 10 - 100gf )



## 9. 其他 / OTHERS

9.1 如果在使用中有超出本規格書的要求，必須經由雙方協商確認。 / In the event that an impropriety is found beyond this specification , it shall be fixed by mutual agreement between the parties.

9.2 如果本規格書有不適當的情況，必須通過雙方協商並由本公司修改。 / In the event that an impropriety is found in this specification , Juneway Electronic Technology Co., Ltd. shall amend it by mutual agreement between the parties.