

Specification of surge absorber

一.範圍: 本規格書為玻璃管型突波吸收器之系列產品.

I.Scope: This specification covers the series products of the tube type of Surge Absorber.

二. 製品型名:

II. Part Number System :

例: JSE-----201---M-----SMD

Example: 1 2 3 4

(1) 系列名稱  
Series Name

|                           |                           |
|---------------------------|---------------------------|
| JSE                       |                           |
| 靜電型<br>Electrostatic type | 通訊型<br>Communication type |

(2) 直流放電電壓

DC Spark-Over Voltage

前兩位為有效數.第三位數字為 $10^1$ .例如251為 $25 \times 10^1 = 250$ .

The first two digits are a multiplicand. The third number is 10<sup>1</sup>.

For example:251 means 25 X 10=250.

單位表示伏特(V).

The Unit of voltage is V.

(3)直流放電容許誤差值.

Tolerance of DC Spark-Over Voltage

|      |      |      |
|------|------|------|
| L    | M    | N    |
| ±15% | ±20% | ±30% |

(4)包裝形態

Packaging

|              |
|--------------|
| SMD          |
| 帶裝<br>Taping |

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三. 溫度範圍.

III. Temperature range

(1) 使用溫度範圍-25°C -----+65°C.

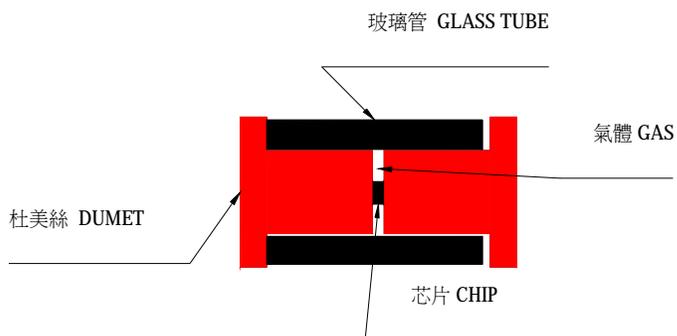
Working temperature range: -25°C -----+65°C.

(2) 保存溫度範圍-25°C -----+85°C.

Storing temperature range: -25°C -----+85°C.

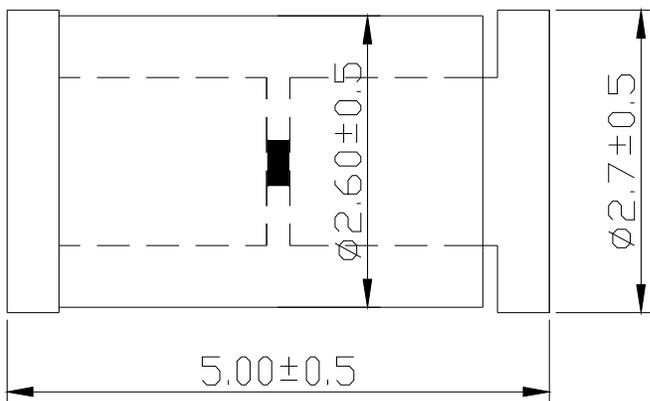
四. 製品結構.

IV. Structure



五. 製品尺寸.

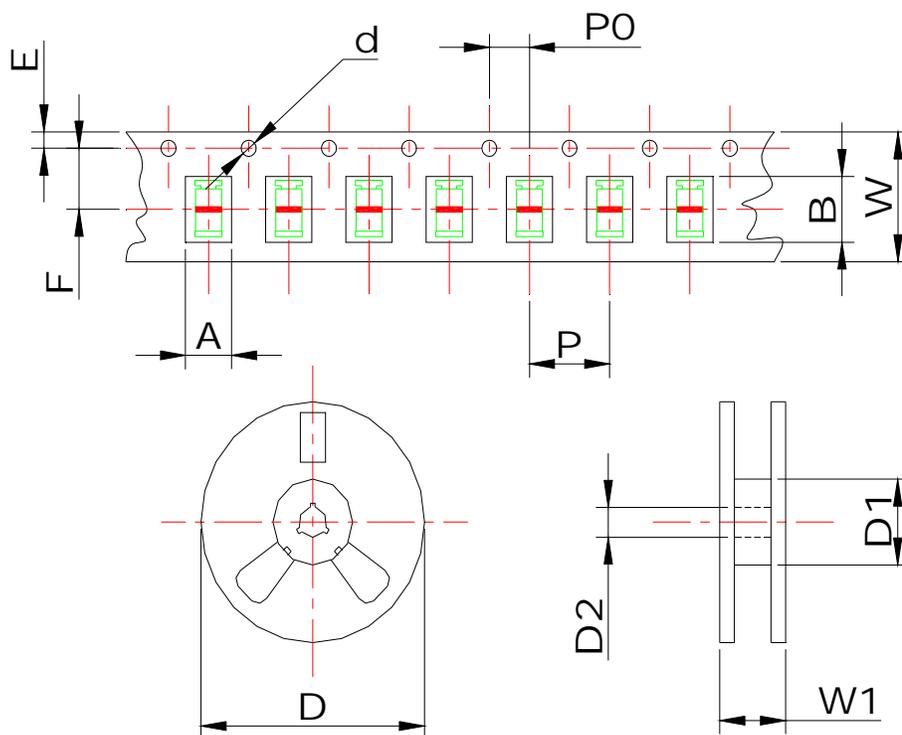
V. Dimension



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**JSE (2.6\*5.0) JSE Series:**

| Part Number  | DC Spark-Over Voltage<br>Vs(V) | Insulation Resistance<br>IR(OHM)/DC<br>V | Electrostatic Capacitance<br>1KHz-6Vmax<br>C(pF) | Surge current capacity<br>8/20us | Surge Life Test                                      |
|--------------|--------------------------------|--|--|----------------------------------|--|
| JSE-141N-SMD | 140 (98~182)                   | >100M/50V                                | <1.0   | 1000A                            | 1kHz-10KV Max<br>(10x700us<br>4000v 100A 10<br>time) |
| JSE-181N-SMD | 180(126-234)                   | >100M/50V                                |  |                                  |  |
| JSE-201M-SMD | 200(160-240)                   | >100M/100V                               |  |                                  |  |
| JSE-301M-SMD | 300(240-360)                   |  |  |                                  |  |
| JSE-401M-SMD | 400(320-480)                   | >100M/250V                               |  |                                  |  |
| JSE-501M-SMD | 500(400-600)                   |  |  |                                  |  |



六. 包裝尺寸.

| 標識 | 規格 mm (inch)                | 標識 | 規格 mm (inch)                  |
|----|-----------------------------|----|-------------------------------|
| A  | 4.6 +/- 0.1 (.181 +/- .004) | E  | 1.5 +/- 0.1 (.059 +/- .004)   |
| B  | 6.1 +/- 0.1 (.240 +/- .004) | F  | 5.65 +/- 0.05 (.222 +/- .002) |
| d  | 1.5 +/- 0.1 (.059 +/- .004) | P  | 8.0 +/- 0.1 (.315 +/- .004)   |
| D  | 330 +/- 2.0 (7.0 +/- .079)  | PO | 4.0 +/- 0.1 (.157 +/- .004)   |
| D1 | 50 min                      | W  | 12.0 +/- 0.2 (.472 +/- .008)  |
| D2 | 13 +/- 0.5 (.512 +/- .020)  | W1 | 16.8 +/- 2.0 (.661 +/- .079)  |

Spark Gap Protectors (SPG)

JSE 2.6X5.0 SMD Series

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| 七. 基本特性. (Initial Characteristics)                   |   |   |
|--|---|---|
| 項目<br>Test Item                                      | 測 試 條 件<br>Method   | Test<br>規 格 值<br>Specification                                      |
| 直流放電電壓<br>DC Spark-Over<br>Voltage Vs(V)             | 逐漸地增加測量使用直流電壓,即可知其開始電壓.測定電流為一毫安與測定時間最大為一秒(1sec).(1mA)<br>(Add and measure the DC Voltage gradually Maxto get the discharge threshold voltage. The measuring current is 1mA/1 second max.)                                   | 依仕様值而定 (It depends on each spec.)                                   |
| 內絕緣電阻<br>Insulation<br>Resistance                    | 在規定的設定直流電壓下,跨在兩端引線.即測量其內絕緣電阻值.<br>(Measure the insulation resistance of two end of leadwire under the specified DC voltage.)  | 100MΩ 或大於100MΩ<br>(100MΩ min.)                                      |
| 靜電電容<br>Capacitance<br>C(pF)                         | 使用頻率1KHz與小於或等於6V直流電壓之電源.即測量其靜電電容量.<br>Measure the Electrostatic Capacitance under the test condition of 1KHz,DC 6V(max).  | 1PF或小於1PF (1pF max.)  |
| 八.環境試驗.(Enviromental Characteristics)                |   |   |
| 試驗項目<br>Test Item                                    | 試 驗 方 法<br>Test Method  | 性 能<br>Characteristics  |
| 耐寒性(依據JIS C0020) Cold Resistance JIS C0020           | 放置於-40°C±3°C之環境中1000小時後,取出置於常溫常濕中4小時後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.<br>After -40±3°C (1000hrs) / room temp.,normal humidity(4 hrs) cycle, measure the properties.  | 滿足各個特性之規格值<br>Within standard mentioned in Initial Characteristics. |
| 耐熱性(依據JIS C0021) Heat Resistance JIS C0021           | 放置於125°C±2°C之環境中1000小時後,取出置於常溫常濕中4小時後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.<br>After 125±2°C (1000hrs) / room temp.,normal humidity(4 hrs) cycle, measure the properties.  | 滿足各個特性之規格值<br>Within standard mentioned in Initial Characteristics. |
| 耐濕性(依據JIS C0022) Humidity Resistance JIS C0020       | 放置於85°C±2°C RH85%之環境中1000小時後,取出置於常溫常濕中4小時後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.<br>After 85±2°C, 85% RH (1000hrs)/room temp., normal humidity(4hrs)cycle, measure the properties.   | 滿足各個特性之規格值<br>Within standard mentioned in Initial Characteristics. |
| 溫度周期(依據JIS C0025) Temperature Cycle Test (JIS C0025) | -40°C±3°C (30分)~(常溫3分)~125°C±2°C (30分)為1周期,重複25次後,取出置於常溫/常濕中4小時後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.<br>25 times repetition of cycle -40±3°C (30 Min.), room temp., (4 Min.), 125±2°C (30 Min.), room temp., normal humidity(4hrs) . | 滿足各個特性之規格值<br>Within standard mentioned in Initial Characteristics. |

Spark Gap Protectors (SPG)

JSE 2.6X5.0 SMD Series

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九. 焊錫特性.(Solder Characteristics)

| 試驗項目<br>Test Item  | 試驗方法<br>Test Method   | 結果Specification   |
|--|---|---|
| 焊錫附著性<br>(依據JIS C0050<br>4.6項)<br>Solderability<br>(JIS C0050,4.6) | 將沾過助焊劑之導線,自距電極線根部3mm處起,浸於265±5℃之焊錫液中5秒鐘後,將導線之助焊劑洗淨後,檢查焊錫附著情形.(Apply flux and immerse in molten solder, up to the point of 3mm from the body, for 5 sec. (265℃±5℃). Wash the leadwire and check for soldering adhesion.) | 導線須均勻附著90%以上.<br>(Lead wire is evenly covered by solder over 90%.)    |
| 焊錫耐熱性<br>(依據JISC0051)<br>Solder Heat<br>(JIS C0051)                | 將沾過助焊劑之電極,自距離電極根部2mm處起,浸於265±5℃之焊錫液中10±1秒鐘後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.(Lead wire is dipped up to the point of 2mm from the body, into 265℃±5℃ solder for 10±1 sec. And measure the properties.)                         | 滿足各特性之規格值.<br>(Within standard mentioned in Initial Characteristics.) |

十. 突波特性.( Surge Characteristics)

| 試驗項目<br>Test Item      | 試驗方法<br>Test Method   | 結果Specification   |
|------------------------|---|---|
| 突波壽命(JSE)<br>Life(JSE) | 將(10X700) μ sec-1KV突波,變換極向各5次,(100X1000) μ sec-1KV之突波,變換極向各6次,每隔30秒施加於試料24次後,檢測直流開始放電電壓,絕緣阻抗,靜電容量及檢查外觀.(Apply a standard impulse voltage ((10X700) μ sec) of 1KV for 5 times with intervals of 30 sec., and then change the polarity of the surge and apply a impulse again. And similarly, apply a impulse voltage((100X1000) μ sec) of 1KV. Total apply 24 times. Then measure DC spark-over volatage, IR & Capacitance.) | 直流開始放電電壓JSE<br>ΔVs/Vs ≤ 30% (DC spark-over volatage JSE:<br>ΔVs/Vs ≤ 30%)   |
| 突波壽命(JSE)<br>Life(JSE) | 每間隔10秒施加10KV之電壓於1500PF之電容器通過試料,做200次(Apply 10 KV voltage charged in 1500pF condenser and apply the current to the specimen,200 times at 10 seconds of intervals.)   | 絕緣阻抗:須滿足規定值. 靜電電容:須滿足規定值. 外觀:無影響使用之顯著缺陷<br>(Insulation Resistance & Capacitance to meet the specified value. Appearance: No cracks or failures .) |