### FEATURES:
- Outstanding ESD protection
- Very low leakage current
- Bi-directional
- Extremely low capacitance for high speed data transmission applications

### APPLICATIONS:
- High speed data ports
- USB 2.0
- IEEE 1394
- HDMI
- DVI
- High speed ethernet

### STANDARD SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Capacitance</th>
<th>Leakage Current</th>
<th>Peak Voltage</th>
<th>Clamping Voltage</th>
<th>Rated Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.15pF typ.</td>
<td>1μA max.</td>
<td>500V typ.</td>
<td>30V typ.</td>
<td>D.C. 12V</td>
</tr>
<tr>
<td>0.25pF max.</td>
<td></td>
<td></td>
<td>100V max.</td>
<td></td>
</tr>
</tbody>
</table>

**Capacitance:**
The capacitance value shall be measured under the conditions specified below:
- **Frequency:** 1MHz±10%,
- **Voltage:** 1Vrms±0.2Vrms,
- **Temperature:** 25°C±2°C

**Leakage Current:**
The leakage current value shall be measured under the conditions specified below:
- **Voltage:** 6Vdc,
- **Temperature:** 25°C±2°C

**Peak Voltage:**
The peak voltage value shall be measured under the following conditions:
- **ESD test conditions:** IEC61000-4-2, 8kV contact discharge.

**Clamping Voltage:**
The clamping voltage value shall be measured at 30ns after initiation of pulse and measured under the conditions specified below:
- **ESD test conditions:** IEC61000-4-2, 8kV contact discharge.

### ELECTRICAL PERFORMANCE:

**Figure 1.** ESD Suppression Voltage Waveform

**Figure 2.** Capacitance
ELECTRICAL PERFORMANCE: - continued:

Figure 3. Insertion Loss Diagram

Figure 4. Change in Leakage Current according to temperature

Figure 5. Eye Diagram

Figure 6. TDR Test Result

Figure 7. I-V Curve Characteristics
**1.0 x 0.5mm SMD SURGE PROTECTOR**

**ABSP10**

**OUTLINE DRAWING:**

- Recommended Land Pattern

<table>
<thead>
<tr>
<th>Size (mm)</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.4</td>
<td>0.6</td>
<td>0.64</td>
<td>0.2</td>
<td>0.67</td>
</tr>
</tbody>
</table>

**Dimensions:** mm

**TAPE & REEL:**

- T= tape and reel (10,000 pcs per reel)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>W</th>
<th>F</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.70±0.05</td>
<td>1.20±0.05</td>
<td>8.00±0.20</td>
<td>3.50±0.05</td>
<td>1.75±0.10</td>
</tr>
</tbody>
</table>

**REFLOW PROFILE:**

- soldering 10 sec. max.
- 180°C 60 sec. max.
- 260°C 100 sec. min.

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