ABT-8

**FEATURES**
- Small size and low profile SMT package
- Low insertion loss within working frequency range
- 1:1 impedance ratio
- Excellent solderability

**APPLICATIONS:**
- Balanced unbalanced transformation between antenna and cable for TV tuner, STB

**ELECTRICAL SPECIFICATIONS:**

Operating Temperature: -40°C to +85°C
Storage Temperature: -10°C to +40°C, 70% RH max. in tape and reel

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Frequency Range (MHz)</th>
<th>Unbalance/Balance Impedance (ohm)</th>
<th>DC Resistance (Ω) Max</th>
<th>Rated Current (mA) Max</th>
<th>Insertion Loss max (dB)</th>
<th>CMRR min (dB)</th>
<th>Rated Voltage (Vdc)</th>
<th>Withstand Voltage (Vdc)</th>
<th>Insulation Resistance Min. (MΩ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT-8-75-1</td>
<td>45~870</td>
<td>75/75</td>
<td>0.80</td>
<td>200</td>
<td>1.0</td>
<td>20</td>
<td>50</td>
<td>125</td>
<td>10</td>
</tr>
<tr>
<td>ABT-8-50-1</td>
<td>45~870</td>
<td>50/50</td>
<td>0.80</td>
<td>200</td>
<td>1.2</td>
<td>20</td>
<td>50</td>
<td>125</td>
<td>10</td>
</tr>
<tr>
<td>ABT-8-75-2</td>
<td>50~1200</td>
<td>75/75</td>
<td>0.40</td>
<td>300</td>
<td>1.5</td>
<td>20</td>
<td>50</td>
<td>125</td>
<td>10</td>
</tr>
<tr>
<td>ABT-8-75-3</td>
<td>1000~1500</td>
<td>75/75</td>
<td>0.42</td>
<td>290</td>
<td>1.4</td>
<td>20</td>
<td>50</td>
<td>125</td>
<td>10</td>
</tr>
</tbody>
</table>

**ELECTRICAL CHARACTERISTIC CURVES**

<table>
<thead>
<tr>
<th>ABT-8-75-1</th>
<th>Insertion Loss Characteristic</th>
<th>CMRR Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="chart1" alt="Insertion Loss Characteristic" /></td>
<td><img src="chart2" alt="CMRR Characteristic" /></td>
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</table>

<table>
<thead>
<tr>
<th>ABT-8-75-1</th>
<th>Amplitude Imbalance Characteristic</th>
<th>Phase Balance Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="chart3" alt="Amplitude Imbalance Characteristic" /></td>
<td><img src="chart4" alt="Phase Balance Characteristic" /></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ABT-8-75-1</th>
<th>Return Loss Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="chart5" alt="Return Loss Characteristic" /></td>
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</tbody>
</table>

2 Faraday, Suite# B | Irvine | CA 92618 Revised: 02.04.15
Ph. 949.546.8000 | Fax. 949.546.8001
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ELECTRICAL CHARACTERISTIC CURVES

**ABT-8-50-1**

*Insertion Loss Characteristic*

*CMRR Characteristic*

*Amplitude Imbalance Characteristic*

*Phase Balance Characteristic*

*Return Loss Characteristic*
Wire Wound Chip Balun Wide Band Transformer

**ABT-8**

RoHS / RoHS II Compliant

2.0 x 1.2 x 1.2mm

**ELECTRICAL CHARACTERISTIC CURVES**

**ABT-8-75-2**

- Insertion Loss Characteristic
- CMRR Characteristic
- Amplitude Imbalance Characteristic
- Phase Balance Characteristic
- Return Loss Characteristic

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Wire Wound Chip Balun Wide Band Transformer

ABT-8

RoHS / RoHS II Compliant

2.0 x 1.2 x 1.2mm

ELECTRICAL CHARACTERISTIC CURVES

- **Insertion Loss Characteristic**
- **CMRR Characteristic**
- **Amplitude Imbalance Characteristic**
- **Phase Balance Characteristic**
- **Return Loss Characteristic**

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PART IDENTIFICATION:

ABT-8- ☐-☐-☐

Impedance Code
Frequency Range Code
Packaging

Please refer to Electrical Spec Table
Please refer to Electrical Spec Table
T: 2kpcs/reel

OUTLINE DIMENSIONS:

Recommended Land Pattern

Schematic

Material Structure

<table>
<thead>
<tr>
<th>No.</th>
<th>Part Name</th>
<th>Material Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lid</td>
<td>Ni-Zn Ferrite</td>
</tr>
<tr>
<td>2</td>
<td>Epoxy</td>
<td>Epoxy resin</td>
</tr>
<tr>
<td>3</td>
<td>Wire</td>
<td>Polyurethane system enameled copper wire</td>
</tr>
<tr>
<td>4</td>
<td>Core</td>
<td>Ni-Zn Ferrite</td>
</tr>
<tr>
<td>5</td>
<td>Electrode</td>
<td>(Ag-Pd)+Ni+Sn plating</td>
</tr>
</tbody>
</table>

Dimension: mm

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REFLOW PROFILE:

- Preheat condition: 150~200°C/60~120sec.
- Allowed time above 217°C: 60~90sec.
- Max temp: 260°C
- Max time at max temp: 10sec.
- Solder paste: Sn/3.0Ag/0.5Cu
- Allowed Reflow time: 2 times max.

TAPE & REEL:

T= tape and reel (2,000pcs/reel)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>P</th>
<th>K</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.55±0.2</td>
<td>2.25±0.2</td>
<td>4.0±0.1</td>
<td>1.45±0.1</td>
<td>0.2±0.1</td>
</tr>
</tbody>
</table>

Dimension: mm

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