Balun transformers
Wound SMD

ATB series

- ATB2012E-20011 (2.0×1.2×0.6mm)
- ATB2012-50011 (2.0×1.2×1.2mm)
- ATB2012E-50011M (2.0×1.2×1.0mm)
- ATB2012E-50012M (2.0×1.2×1.0mm)
- ATB2012-75011 (2.0×1.2×1.2mm)
- ATB2012E-75011M (2.0×1.2×1.0mm)
REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this product.

⚠️ REMINDERS

- The storage period is less than 6 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
  If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
  The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.
  If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.
- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Carefully lay out the coil for the circuit board design of the non-magnetic shield type.
  A malfunction may occur due to magnetic interference.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.
  The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.
  If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

  (1) Aerospace/aviation equipment
  (2) Transportation equipment (cars, electric trains, ships, etc.)
  (3) Medical equipment
  (4) Power-generation control equipment
  (5) Atomic energy-related equipment
  (6) Seabed equipment
  (7) Transportation control equipment
  (8) Public information-processing equipment
  (9) Military equipment
  (10) Electric heating apparatus, burning equipment
  (11) Disaster prevention/crime prevention equipment
  (12) Safety equipment
  (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.
Balun transformers
Wound SMD

Overview of the ATB series

**FEATURES**
- The ATB2012 case size is L2.0×W1.2.
- The case size is smaller than conventional Baluns.
- Low insertion loss and good balance parameters.
- Conforms to the RoHS Directive.

**APPLICATION**
- TV and mobile device tuners (DVB-T/H, ISDB-T, etc.)
- STB / tuner power divider
- NFC (Near Field Communication)

**PART NUMBER CONSTRUCTION**

<table>
<thead>
<tr>
<th>ATB</th>
<th>2012</th>
<th>E</th>
<th>200</th>
<th>11</th>
<th>T</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series name</td>
<td>L x W dimensions (mm)</td>
<td>Internal code</td>
<td>Input impedance (Ω)</td>
<td>Impedance ratio</td>
<td>Packaging style</td>
<td>Internal code</td>
</tr>
<tr>
<td>ATB</td>
<td>2012</td>
<td>-</td>
<td>500</td>
<td>11</td>
<td>T</td>
<td>000</td>
</tr>
<tr>
<td>Series name</td>
<td>L x W dimensions (mm)</td>
<td>Internal code</td>
<td>Input impedance (Ω)</td>
<td>Impedance ratio</td>
<td>Packaging style</td>
<td>Internal code</td>
</tr>
<tr>
<td>ATB</td>
<td>2012</td>
<td>-</td>
<td>500</td>
<td>11</td>
<td>M</td>
<td>01</td>
</tr>
<tr>
<td>Series name</td>
<td>L x W dimensions (mm)</td>
<td>Internal code</td>
<td>Input impedance (Ω)</td>
<td>Impedance ratio</td>
<td>Product internal</td>
<td>Packaging style</td>
</tr>
</tbody>
</table>

**OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT**

<table>
<thead>
<tr>
<th>Type</th>
<th>Temperature range*</th>
<th>Storage temperature**</th>
<th>Reel diameter</th>
<th>Package quantity (pieces/reel)</th>
<th>Individual weight (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATB2012E-20011</td>
<td>-40 to +85</td>
<td>-40 to +85</td>
<td>ø180mm</td>
<td>4000</td>
<td>5</td>
</tr>
<tr>
<td>ATB2012S-50011</td>
<td>-40 to +85</td>
<td>-40 to +85</td>
<td>ø180mm</td>
<td>2000</td>
<td>8</td>
</tr>
<tr>
<td>ATB2012E-50011M</td>
<td>-40 to +85</td>
<td>-40 to +85</td>
<td>ø180mm</td>
<td>2000</td>
<td>8</td>
</tr>
<tr>
<td>ATB2012E-75011M</td>
<td>-40 to +85</td>
<td>-40 to +85</td>
<td>ø180mm</td>
<td>2000</td>
<td>8</td>
</tr>
</tbody>
</table>

* Operating temperature range includes self-temperature rise.
** The storage temperature range is for after the assembly.

- Halogen-free: Indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

RoHS Directive Compliant Product
Halogen-free
Compatible with lead-free solders

Downloaded from Arrow.com.
Overview of the ATB series

RECOMMENDED REFLOW PROFILE

<table>
<thead>
<tr>
<th>Preheating</th>
<th>Soldering</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp.</td>
<td>Time</td>
<td>Temp.</td>
</tr>
<tr>
<td>T1</td>
<td>T2</td>
<td>T3</td>
</tr>
<tr>
<td>150°C</td>
<td>180°C</td>
<td>230°C</td>
</tr>
</tbody>
</table>

Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

ATB series

ATB2012E-20011 type

■ SHAPE & DIMENSIONS

 Dimensions in mm

■ RECOMMENDED LAND PATTERN

 Dimensions in mm

■ CIRCUIT DIAGRAM

Unbalanced Port 20Ω
Balanced Port 20Ω
(10Ω)
(10Ω)
ATB series  **ATB2012E-20011 type**

### ELECTRICAL CHARACTERISTICS

#### CHARACTERISTICS SPECIFICATION TABLE

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>UB/B impedance (Ω)</th>
<th>Insertion loss (dB) max.</th>
<th>CMRR typ.</th>
<th>DC resistance (Ω) max.</th>
<th>Rated current (mA)</th>
<th>Rated voltage (V)</th>
<th>Insulation resistance (MΩ) min.</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.56</td>
<td>20/20</td>
<td>1.0</td>
<td>20</td>
<td>1.5</td>
<td>150</td>
<td>20</td>
<td>10</td>
<td>ATB2012E-20011-T06</td>
</tr>
</tbody>
</table>

#### FREQUENCY CHARACTERISTICS

**INSERTION LOSS**

- ![Insertion Loss Graph](image)

**RETURN LOSS**

- ![Return Loss Graph](image)

**CMRR**

- ![CMRR Graph](image)

**PHASE BALANCE**

- ![Phase Balance Graph](image)

**Measurement equipment**

<table>
<thead>
<tr>
<th>Measurement item</th>
<th>Product No.</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC resistance</td>
<td>4338A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>4339A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Return loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Amplitude imbalance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Phase balance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
</tbody>
</table>

* Equivalent measurement equipment may be used.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.
ATB series

ATB2012-50011 type

**SHAPE & DIMENSIONS**

Dimensions in mm

**RECOMMENDED LAND PATTERN**

Dimensions in mm

**CIRCUIT DIAGRAM**

Unbalanced Port 50\(\Omega\)

Balanced Port 50\(\Omega\)

(25\(\Omega\))

(25\(\Omega\))

---

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

RF Components

ATB series **ATB2012-50011 type**

### ELECTRICAL CHARACTERISTICS

#### CHARACTERISTICS SPECIFICATION TABLE

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>UB/B impedance (Ω)</th>
<th>Insertion loss (dB) typ.</th>
<th>Insertion loss (dB) max.</th>
<th>CMRR typ.</th>
<th>DC resistance (Ω) max.</th>
<th>Rated current (mA)</th>
<th>Rated voltage (V)</th>
<th>Insulation resistance (MΩ) min.</th>
<th>Withstanding voltage (V)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 to 860</td>
<td>50/50</td>
<td>1.0</td>
<td>2.5</td>
<td>20</td>
<td>1.0</td>
<td>200</td>
<td>20</td>
<td>10</td>
<td>125</td>
<td>ATB2012-50011-T000</td>
</tr>
</tbody>
</table>

### FREQUENCY CHARACTERISTICS

#### INSERTION LOSS

![Insertion Loss Graph](#)

#### RETURN LOSS

![Return Loss Graph](#)

#### AMPLITUDE IMBALANCE

![Amplitude Imbalance Graph](#)

#### PHASE BALANCE

![Phase Balance Graph](#)

- **Measurement equipment**
  - Measurement item: DC resistance
  - Product No.: 4338A
  - Manufacturer: Keysight Technologies
  - Measurement item: Insulation resistance
  - Product No.: 4339A
  - Manufacturer: Keysight Technologies
  - Measurement item: Insertion loss
  - Product No.: E5071B
  - Manufacturer: Keysight Technologies
  - Measurement item: Return loss
  - Product No.: E5071B
  - Manufacturer: Keysight Technologies
  - Measurement item: Amplitude imbalance
  - Product No.: E5071B
  - Manufacturer: Keysight Technologies
  - Measurement item: Phase balance
  - Product No.: E5071B
  - Manufacturer: Keysight Technologies

* Equivalent measurement equipment may be used.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

**ATB series**

**ATB2012E-50011M type**

**ATB2012E-50012M type**

### SHAPE & DIMENSIONS

![Dimensions in mm](image)

### RECOMMENDED LAND PATTERN

![Dimensions in mm](image)

### CIRCUIT DIAGRAM

**ATB2012E-50011M type**

- Unbalanced Port 50Ω
- Balanced Port 50Ω

**ATB2012E-50012M type**

- Unbalanced Port 50Ω
- Balanced Port 100Ω
ATB series

ATB2012E-50011M type
ATB2012E-50012M type

**ELECTRICAL CHARACTERISTICS**

**CHARACTERISTICS SPECIFICATION TABLE**

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>UB/B Impedance (Ω)</th>
<th>Insertion loss (dB) typ.</th>
<th>CMRR typ.</th>
<th>DC resistance (Ω) max.</th>
<th>Rated current (mA)</th>
<th>Rated voltage (V)</th>
<th>Insulation resistance (MΩ) min.</th>
<th>Withstanding voltage (V)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 to 1800</td>
<td>50/50</td>
<td>1.0</td>
<td>2.2</td>
<td>15</td>
<td>0.5</td>
<td>150</td>
<td>10</td>
<td>125</td>
<td>ATB2012E-50011M-T01</td>
</tr>
<tr>
<td>400 to 1800</td>
<td>50/100</td>
<td>1.0</td>
<td>2.5</td>
<td>15</td>
<td>0.5</td>
<td>150</td>
<td>10</td>
<td>125</td>
<td>ATB2012E-50012M-T01</td>
</tr>
</tbody>
</table>

**Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.**

**Please note that the contents may change without any prior notice due to reasons such as upgrading.**
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

RF Components

ATB series

**ATB2012E-50011M type**

**ATB2012E-50012M type**

---

**FREQUENCY CHARACTERISTICS**

**ATB2012E-50011M type**

**INSERTION LOSS**

**RETURN LOSS**

**AMPLITUDE IMBALANCE**

**PHASE BALANCE**

---

**ATB2012E-50012M type**

**INSERTION LOSS**

**RETURN LOSS**

**AMPLITUDE IMBALANCE**

**PHASE BALANCE**

---

**Measurement equipment**

<table>
<thead>
<tr>
<th>Measurement item</th>
<th>Product No.</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC resistance</td>
<td>4338A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insulation resist ance</td>
<td>4339A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Return loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Amplitude imbalance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Phase balance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
</tbody>
</table>

* Equivalent measurement equipment may be used.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.
ATB series

ATB2012-75011 type

**SHAPE & DIMENSIONS**

Dimensions in mm

**RECOMMENDED LAND PATTERN**

Dimensions in mm

**CIRCUIT DIAGRAM**

Unbalanced Port
75Ω

Balanced Port
75Ω

(37.5Ω)

(37.5Ω)

⚠ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.
RF Components

ATB series  ATB2012-75011 type

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>UB/B impedance (Ω)</th>
<th>Insertion loss (dB) typ.</th>
<th>CMRR typ.</th>
<th>DC resistance (Ω) max.</th>
<th>Rated current (mA)</th>
<th>Rated voltage (V)</th>
<th>Insulation resistance (MΩ) min.</th>
<th>Withstanding voltage (V)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 to 1200</td>
<td>75/75</td>
<td>0.8</td>
<td>1.2</td>
<td>20</td>
<td>280</td>
<td>20</td>
<td>10</td>
<td>125</td>
<td>ATB2012-75011-T000</td>
</tr>
</tbody>
</table>

FREQUENCY CHARACTERISTICS

INSERTION LOSS

RETURN LOSS

AMPLITUDE IMBALANCE

PHASE BALANCE

Measurement equipment

<table>
<thead>
<tr>
<th>Measurement item</th>
<th>Product No.</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC resistance</td>
<td>4338A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>4339A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Return loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Amplitude imbalance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Phase balance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
</tbody>
</table>

* Equivalent measurement equipment may be used.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.

ATB series

ATB2012E-75011M type

SHAPE & DIMENSIONS

Dimensions in mm

RECOMMENDED LAND PATTERN

Dimensions in mm

CIRCUIT DIAGRAM

Unbalanced Port 75Ω

Balanced Port 75Ω

(37.5Ω)

(37.5Ω)
ATB series **ATB2012E-75011M type**

**ELECTRICAL CHARACTERISTICS**

**CHARACTERISTICS SPECIFICATION TABLE**

<table>
<thead>
<tr>
<th>Frequency range (MHz)</th>
<th>UB/B impedance (Ω)</th>
<th>Insertion loss (dB) typ.</th>
<th>CMRR (dB) typ.</th>
<th>DC resistance (Ω) max.</th>
<th>Rated current (mA)</th>
<th>Rated voltage (V)</th>
<th>Insulation resistance (MΩ) min.</th>
<th>Withstanding voltage (V)</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 to 1800</td>
<td>75/75</td>
<td>1.0</td>
<td>2</td>
<td>15</td>
<td>150</td>
<td>20</td>
<td>10</td>
<td>125</td>
<td>ATB2012E-75011M-T01</td>
</tr>
</tbody>
</table>

**FREQUENCY CHARACTERISTICS**

**INSERTION LOSS**

**RETURN LOSS**

**AMPLITUDE IMBALANCE**

**PHASE BALANCE**

**Measurement equipment**

<table>
<thead>
<tr>
<th>Measurement item</th>
<th>Product No.</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC resistance</td>
<td>4338A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>4339A</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Insertion loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Return loss</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Amplitude imbalance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
<tr>
<td>Phase balance</td>
<td>E5071B</td>
<td>Keysight Technologies</td>
</tr>
</tbody>
</table>

* Equivalent measurement equipment may be used.

⚠️ Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use.

Please note that the contents may change without any prior notice due to reasons such as upgrading.
Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.

**Packaging style**

### REEL DIMENSIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type</th>
<th>A</th>
<th>W1</th>
<th>W2</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATB2012E-20011</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ATB2012-50011</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ATB2012E-50011M</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ATB2012E-50012M</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ATB2012-75011</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ATB2012E-75011M</td>
<td>ø180</td>
<td>13</td>
<td>60</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions in mm

### TAPE DIMENSIONS

<table>
<thead>
<tr>
<th>Type</th>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>øD0</th>
<th>E</th>
<th>F</th>
<th>P0</th>
<th>P1</th>
<th>P2</th>
<th>W</th>
<th>K</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATB2012E-20011</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.25±0.1</td>
<td>1.55±0.05</td>
<td>1.75±0.1</td>
<td>3.50±0.05</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.05</td>
<td>8.0±0.20</td>
<td>0.75±0.05</td>
<td>0.25±0.05</td>
</tr>
<tr>
<td>ATB2012-50011</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.3±0.1</td>
<td>1.5±0.1/0</td>
<td>1.75±0.1</td>
<td>3.5±0.1</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.1</td>
<td>8.0±0.1</td>
<td>1.4±0.1</td>
<td>0.25±0.05</td>
</tr>
<tr>
<td>ATB2012E-50011M</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.3±0.1</td>
<td>1.5±0.1/0</td>
<td>1.75±0.1</td>
<td>3.5±0.1</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.1</td>
<td>8.0±0.1</td>
<td>1.15±0.1</td>
<td>0.2±0.05</td>
</tr>
<tr>
<td>ATB2012E-50012M</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.3±0.1</td>
<td>1.5±0.1/0</td>
<td>1.75±0.1</td>
<td>3.5±0.1</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.1</td>
<td>8.0±0.1</td>
<td>1.4±0.1</td>
<td>0.25±0.05</td>
</tr>
<tr>
<td>ATB2012-75011</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.3±0.1</td>
<td>1.5±0.1/0</td>
<td>1.75±0.1</td>
<td>3.5±0.1</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.1</td>
<td>8.0±0.1</td>
<td>1.15±0.1</td>
<td>0.2±0.05</td>
</tr>
<tr>
<td>ATB2012E-75011M</td>
<td>A</td>
<td>1.4±0.1</td>
<td>2.3±0.1</td>
<td>1.5±0.1/0</td>
<td>1.75±0.1</td>
<td>3.5±0.1</td>
<td>4.0±0.1</td>
<td>4.0±0.1</td>
<td>2.0±0.1</td>
<td>8.0±0.1</td>
<td>1.15±0.1</td>
<td>0.2±0.05</td>
</tr>
</tbody>
</table>

Dimensions in mm

**Marking (Notch):**

ATB2012E-20011
ATB2012-50011
ATB2012E-50011M
ATB2012E-50012M
ATB2012-75011
ATB2012E-75011M