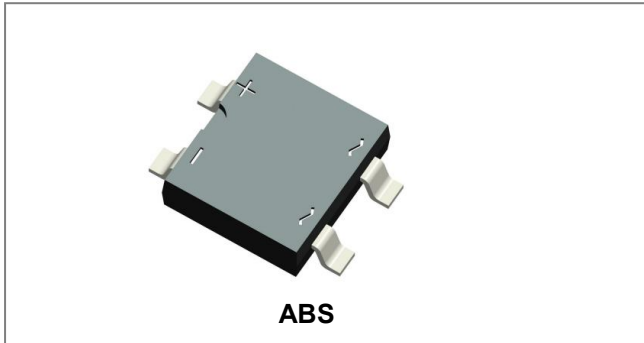


## ABS2U THRU ABS10U

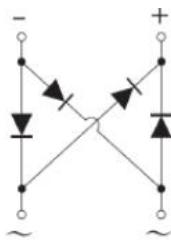
### SINGLE PHASE 1.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER



#### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- “-HF” suffix is for Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

#### Circuit Diagram



#### Mechanical Data

- Case: SOPA-4, Molded plastic ABS
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Weight: 0.101 grams(approx)

#### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

| Type Number  | Symbol            | ABS2U  | ABS4U  | ABS6U  | ABS8U  | ABS10U  | Units |   |
|--|-------------------|--------|--------|--------|--------|---------|-------|---|
| ABS2U-HF THRU ABS10U-HF Marking Code   |                   | ABS2UH | ABS4UH | ABS6UH | ABS8UH | ABS10UH | Units |   |
| Peak Repetitive Reverse Voltage  | V <sub>RRM</sub>  |        |        |        |        |         |       |   |
| Working Peak Reverse Voltage   | V <sub>RWM</sub>  | 200    | 400    | 600    | 800    | 1000    | V     |   |
| DC Blocking Voltage  | V <sub>DC</sub>   |        |        |        |        |         |       |   |
| RMS Reverse Voltage  | V <sub>RMS</sub>  | 140    | 280    | 420    | 560    | 700     | V     |   |
| Maximum Average Rectified Output Current<br>@T <sub>A</sub> =30°C  | I <sub>(AV)</sub> | 1      |        |        |        |         |       | A |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>  | 35     |        |        |        |         |       | A |

**Electrical Characteristics@T<sub>A</sub>=25°C unless otherwise specified**

| Type Number   | Symbol         | ABS2U      | ABS4U  | ABS6U  | ABS8U  | ABS10U  | Units |
|---|----------------|------------|--------|--------|--------|---------|-------|
| ABS2U-HF THRU ABS10U-HF Marking Code  |                | ABS2UH     | ABS4UH | ABS6UH | ABS8UH | ABS10UH | Units |
| Maximum Forward Voltage (per element) @I <sub>F</sub> =1A   | V <sub>F</sub> | 1.1        |        |        |        |         | V     |
| Maximum Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C | I <sub>R</sub> | 5.0<br>500 |        |        |        |         | μA    |

\* Pulse width < 300 μs, duty cycle < 2%

**Thermal-Mechanical Specifications@T<sub>A</sub>=25°C unless otherwise specified**

| Type Number                             | Symbol                               | ABS2U       | ABS4U  | ABS6U  | ABS8U  | ABS10U  | Units |
|---|--------------------------------------|-------------|--------|--------|--------|---------|-------|
| ABS2U-HF THRU ABS10U-HF Marking Code    |                                      | ABS2UH      | ABS4UH | ABS6UH | ABS8UH | ABS10UH | Units |
| Typical Thermal Resistance(Note 1)      | R <sub>θJA</sub><br>R <sub>θJL</sub> | 62.5<br>25  |        |        |        |         | °C/W  |
| Operating and Storage Temperature Range | T <sub>J</sub> , T <sub>STG</sub>    | -55 to +150 |        |        |        |         | °C    |

Note: 1. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads.

**Ratings and Characteristics Curves**

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

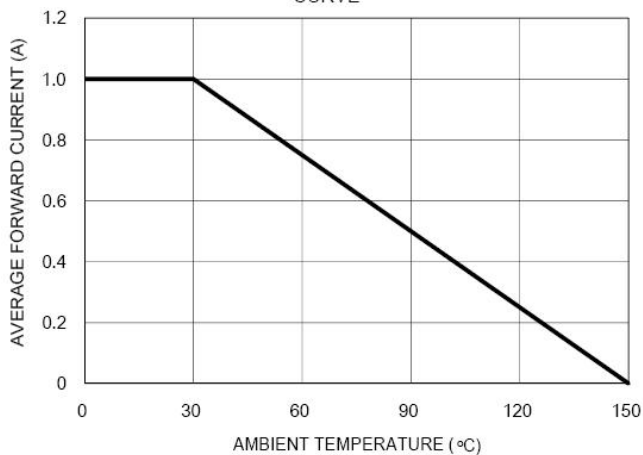
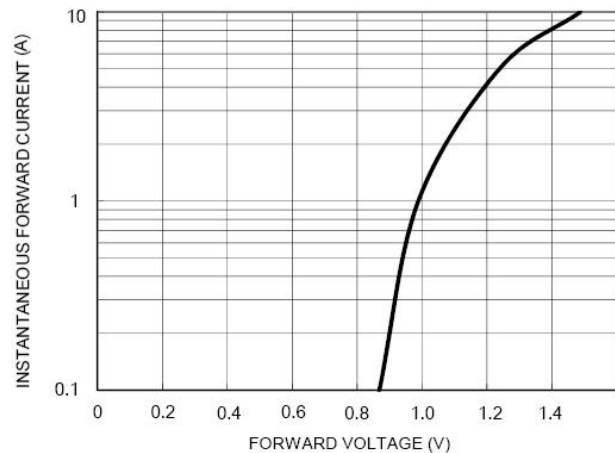
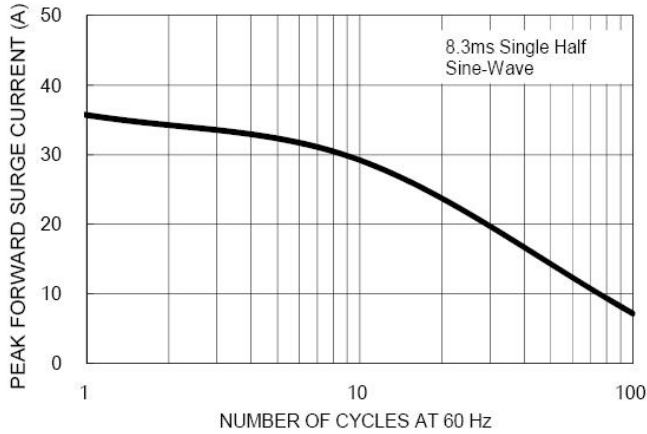


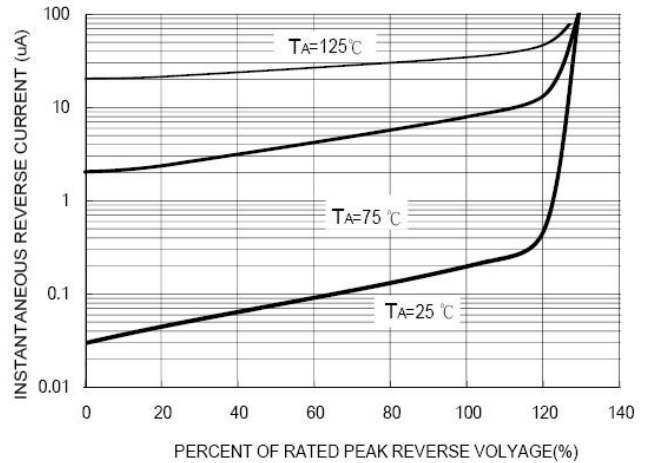
FIG. 2 TYPICAL FORWARD CHARACTERISTIC



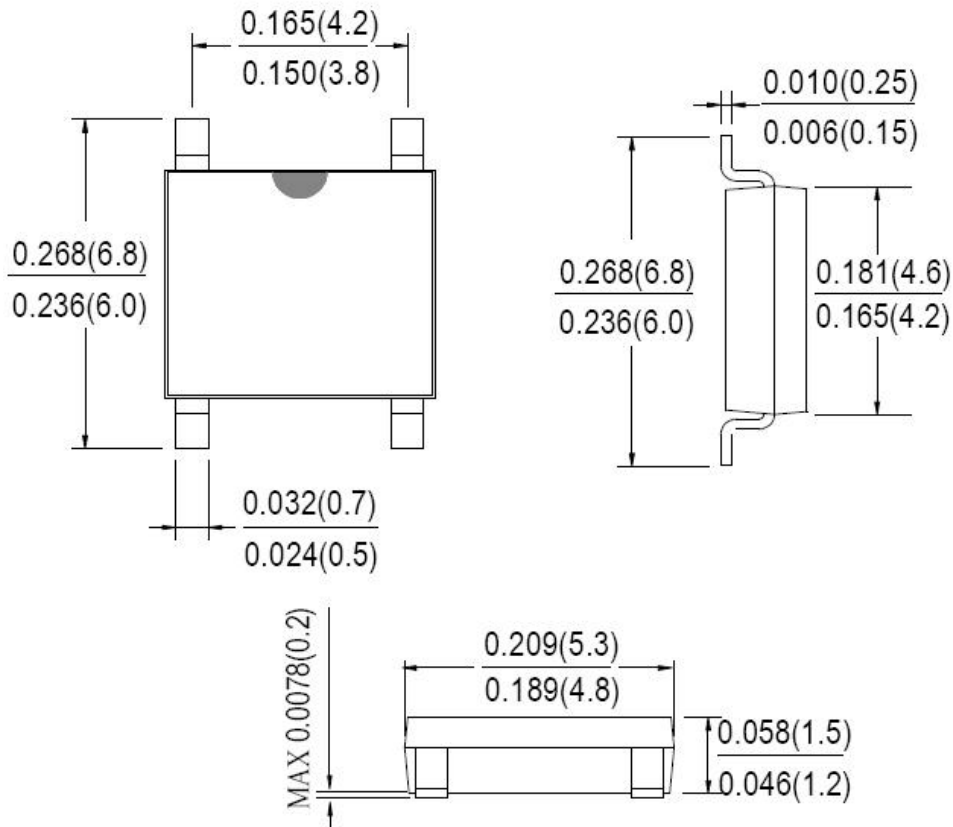
**FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



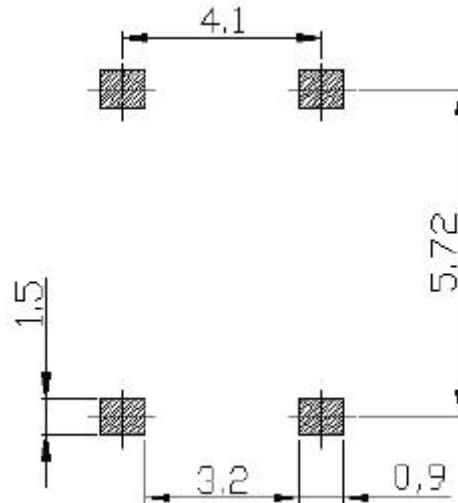
**FIG. 4 TYPICAL REVERSE CHARACTERISTICS**



**Mechanical Dimensions ABS(Inches/Millimeters)**



**Pad Layout(Millimeters)**

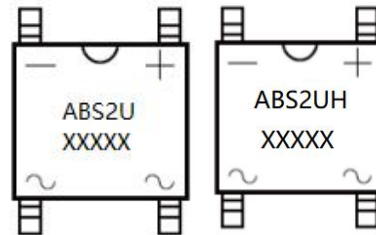


**Ordering Information**

| Device                      | Package | Plating | Shipping       |
|-----------------------------|---------|---------|----------------|
| ABS2U<br>THRU<br>ABS10U     | ABS     | Pure Sn | 5000pcs / reel |
| ABS2UTR<br>THRU<br>ABS10UTR | ABS     | Pure Sn | 5000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Marking Diagram**



Where XXXXX is YYWWL

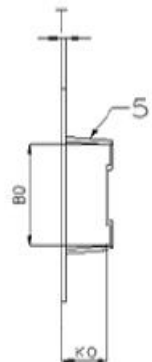
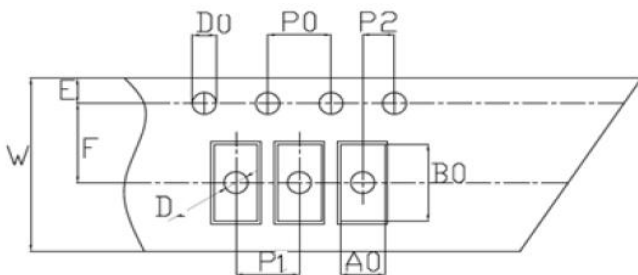
ABS2U = Type Number  
ABS2UH = Marking Code  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

ABS2U

ABS2U-HF

**Carrier Tape Specification ABS**



| SYMBOL | Millimeters |       |
|--------|-------------|-------|
|        | Min.        | Max.  |
| A0     | 5.21        | 5.41  |
| B0     | 7.10        | 7.30  |
| D0     | 1.50        | 1.60  |
| D1     | 1.40        | 1.60  |
| P0     | 3.90        | 4.10  |
| P1     | 7.90        | 8.10  |
| P2     | 1.95        | 2.05  |
| E      | 1.65        | 1.85  |
| K0     | 1.55        | 1.75  |
| F      | 5.45        | 5.55  |
| W      | 11.90       | 12.10 |
| T      | 0.24        | 0.30  |
| 10P0   | 39.80       | 40.20 |

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