**ABS Plastic-Encapsulate Bridge Rectifier****ABS202 THRU ABS210** General Purpose Bridge Rectifier**Features**

- $I_{F(AV)}$  2A
- $V_{RRM}$  200V-1000V
- High surge current capability
- Glass passivated chip

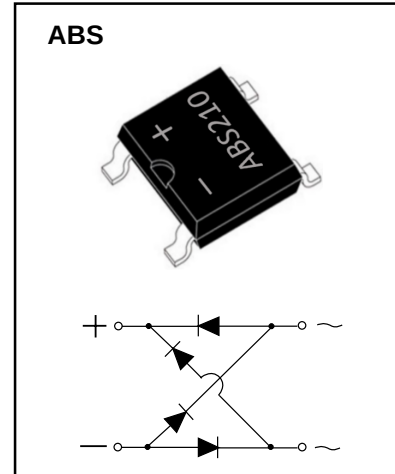
**Applications**

- General purpose 1 phase Bridge rectifier applications

**Marking**

- ABS2XX

X : From 02 To 10

**Limiting Values (Absolute Maximum Rating)**

| Item                                             | Symbol         | Unit        | Conditions                                                   | ABS                  |           |     |     |      |
|--------------------------------------------------|----------------|-------------|--------------------------------------------------------------|----------------------|-----------|-----|-----|------|
|                                                  |                |             |                                                              | 202                  | 204       | 206 | 208 | 210  |
| Repetitive Peak Reverse Voltage                  | $V_{RRM}$      | V           |                                                              | 200                  | 400       | 600 | 800 | 1000 |
| Maximum RMS Voltage                              | $V_{RMS}$      | V           |                                                              | 140                  | 280       | 420 | 560 | 700  |
| Average Rectified Output Current                 | $I_o$          | A           | 60Hz sine wave, R-load, $T_a=40^{\circ}C$                    | On alumina substrate |           |     |     |      |
| Surge(Non-repetitive)Forward Current             | $I_{FSM}$      | A           | 8.3ms sine wave, 1 cycle, $T_j=25^{\circ}C$                  | 2.0                  |           |     |     |      |
|                                                  |                |             | 1.0ms sine wave, 1 cycle, $T_j=25^{\circ}C$                  | 60                   |           |     |     |      |
| Current Squared Time                             | $I^2t$         | $A^2S$      | $1ms \leq t < 8.3ms$ $T_j=25^{\circ}C$ , Rating of per diode |                      | 120       |     |     |      |
| Operation Junction and Storage Temperature Range | $T_J, T_{stg}$ | $^{\circ}C$ |                                                              |                      | 14.94     |     |     |      |
|                                                  |                |             |                                                              |                      | -55 ~+150 |     |     |      |

**Electrical Characteristics (T=25°C Unless otherwise specified)**

| Item                 | Symbol           | Unit          | Test Condition                                            | Max  |
|----------------------|------------------|---------------|-----------------------------------------------------------|------|
| Peak Forward Voltage | $V_{FM}$         | V             | $I_{FM}=2.0A$ , Pulse measurement, Rating of per diode    | 1.1  |
| Peak Reverse Current | $I_{RRM}$        | $\mu A$       | $V_{RM}=V_{RRM}$ , Pulse measurement, Rating of per diode | 5    |
| Thermal Resistance   | $R_{\theta J-A}$ | $^{\circ}C/W$ | Between junction and ambient, On alumina substrate        | 62.5 |
|                      | $R_{\theta J-L}$ |               | Between junction and lead                                 | 25   |
|                      | $R_{\theta J-C}$ |               | Between junction and case                                 | 25   |

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

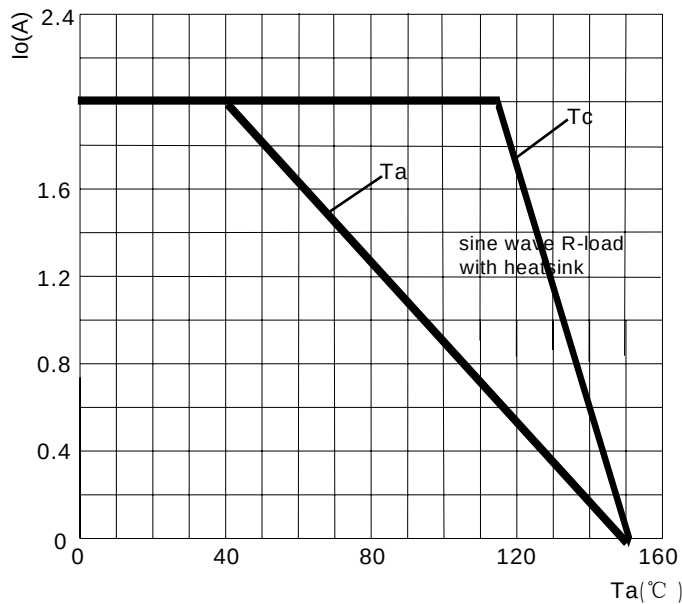


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

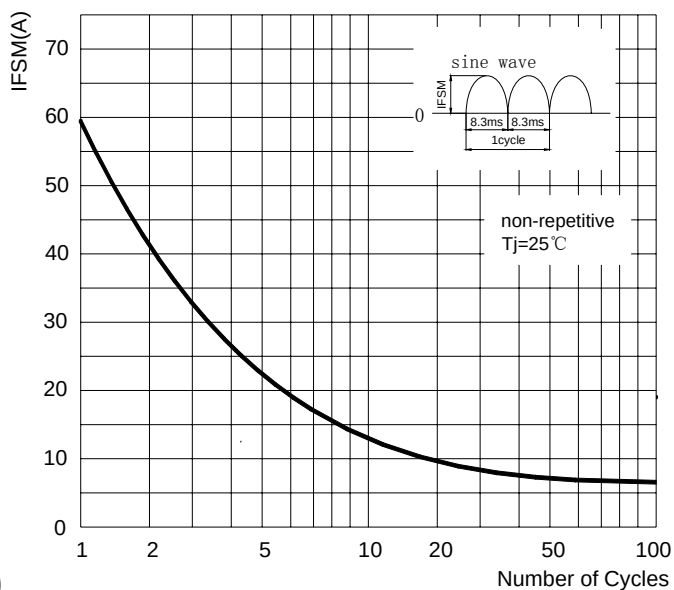


FIG.3: TYPICAL FORWARD CHARACTERISTICS

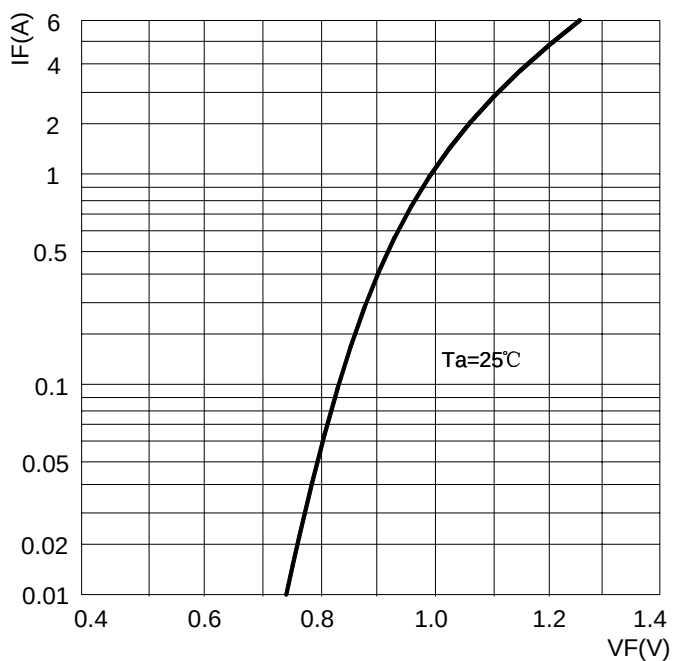
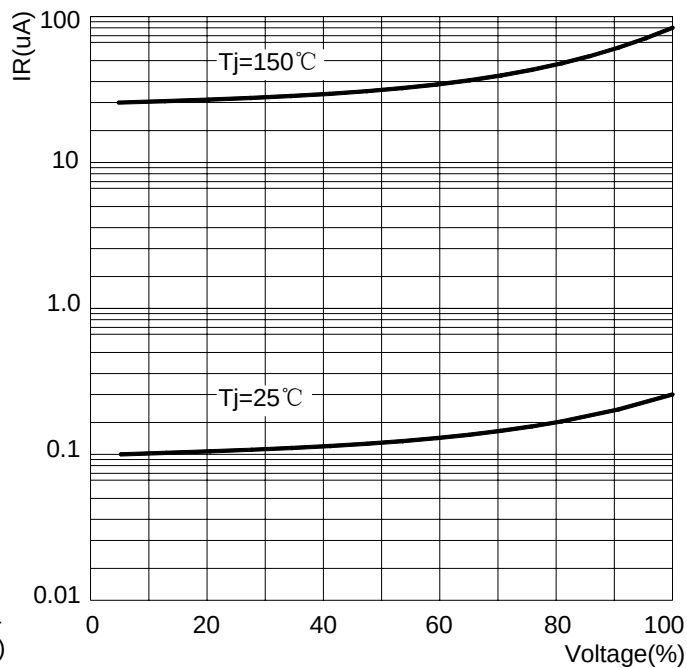
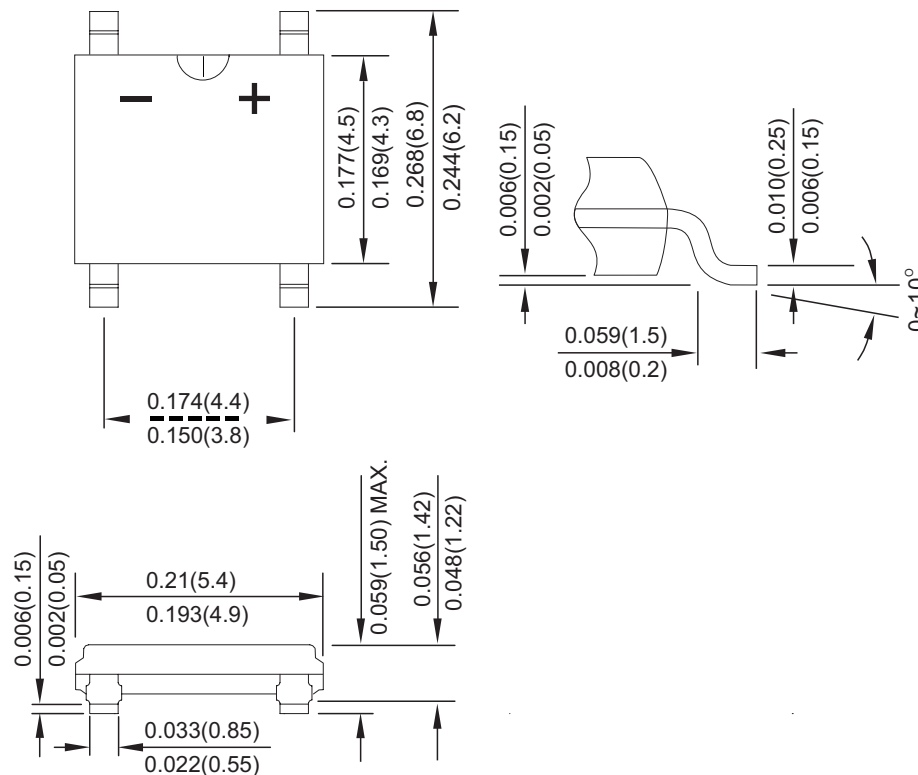


FIG.4: TYPICAL REVERSE CHARACTERISTICS

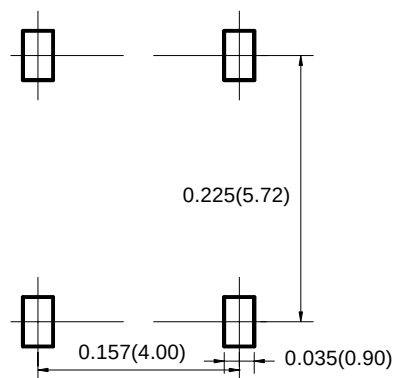


## ABS Package Outline Dimensions



Dimensions in inches and (millimeters)

## ABS Suggested Pad Layout



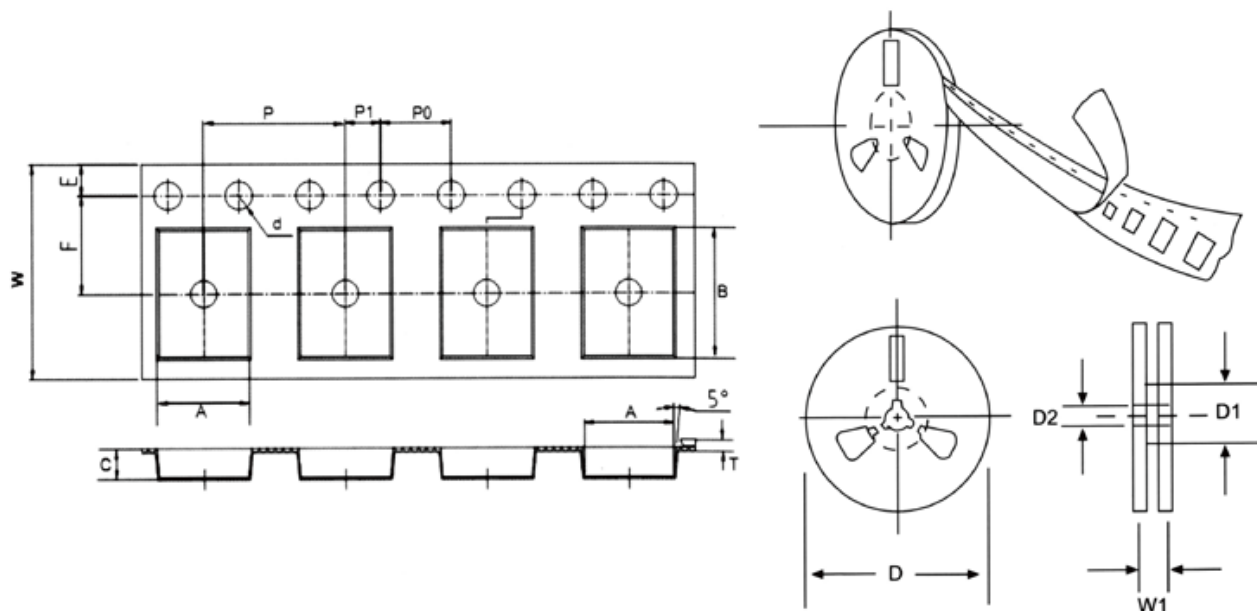
### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

### NOTICE

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## Reel Taping Specifications For Surface Mount Devices–ABS



**FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING**

| ITEM                   | SYMBOL | ABS mm(inch)               |
|------------------------|--------|----------------------------|
| Carrier width          | A      | 5.40+0.1(0.213+0.004)      |
| Carrier length         | B      | 6.90+0.05(0.272+0.002)     |
| Carrier depth          | C      | 2.10+0.1(0.083+0.004)      |
| Sprocket hole          | d      | 1.55±0.05 (0.061±0.002)    |
| Reel outside diameter  | D      | 279±2.0 (11± 0.079)        |
| Reel inner diameter    | D1     | 75±1.0 ( 2.95 ±0.039)      |
| Feed hole diameter     | D2     | 13+0.5(0.512+0.020)        |
| Strocket hole position | E      | 1.75+0.1(0.069+0.004)      |
| Punch hole position    | F      | 5.5+0.05(0.217+0.002)      |
| Punch hole pitch       | P      | 8.0+0.1(0.315+0.004)       |
| Sprocket hole pitch    | P0     | 4.0+0.1(0.157+0.004)       |
| Embossment center      | P1     | 2.0+0.1(0.079+0.004)       |
| Totall tape thickness  | T      | 0.10-0.70(0.004-0.028)     |
| Tape width             | W      | 12.0+0.3/-0.1(0.472+0.004) |
| Reel width             | W1     | 16.8+2.0(0.661+0.079)      |

NOTE:Devices are packde in accordance with EIA standard RS-481-A and specification given above.