

# ABS Plastic-Encapsulate Bridge Rectifier

## General Purpose Schottky Bridge Rectifier

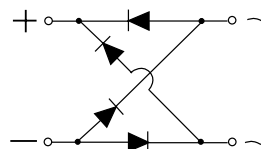
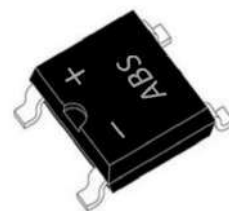
### Features

- $I_{F(AV)}$  2A
- $V_{RRM}$  20V-250V
- High surge current capability
- Low Power Loss, High Efficiency

### Applications

- General purpose 1 phase Bridge rectifier applications

ABS



## Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic  | Symbol                             | KABS        | KABS | KABS | KABS | KABS | KABS | KABS | KABS | KABS | KABS | Unit               |
|---|------------------------------------|-------------|------|------|------|------|------|------|------|------|------|--------------------|
|   |                                    | 22          | 23   | 24   | 25   | 26   | 28   | 210  | 215  | 220  | 225  |                    |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$    | 20          | 30   | 40   | 50   | 60   | 80   | 100  | 150  | 200  | 250  | V                  |
| RMS Reverse Voltage   | $V_{R(RMS)}$                       | 14          | 21   | 28   | 35   | 42   | 56   | 70   | 105  | 140  | 175  | V                  |
| Average Rectified Output Current @ $T_L = 90^\circ\text{C}$   | $I_o$                              | 2.0         |      |      |      |      |      |      |      |      |      | A                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed on<br>rated load (JEDEC Method) | $I_{FSM}$                          | 60          |      |      |      |      |      |      |      |      |      | A                  |
| Forward Voltage @ $I_F = 0A$  | $V_{FM}$                           | 0.50        |      | 0.70 |      | 0.85 |      | 0.90 |      | 0.98 |      | V                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$           | $I_{RM}$                           | 0.1<br>20   |      |      |      |      |      |      |      |      |      | mA                 |
| Typical Thermal Resistance (Note 1)   | $R_{\theta JL}$<br>$R_{\theta JA}$ | 10<br>50    |      |      |      |      |      |      |      |      |      | $^\circ\text{C/W}$ |
| Typical Junction Capacitance  | $C_j$                              | 110         |      |      |      |      | 30   |      | 110  |      |      | pF                 |
| Operating Temperature Range   | $T_j$                              | -65 to +150 |      |      |      |      |      |      |      |      |      | $^\circ\text{C}$   |
| Storage Temperature Range   | $T_{STG}$                          | -65 to +150 |      |      |      |      |      |      |      |      |      | $^\circ\text{C}$   |

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

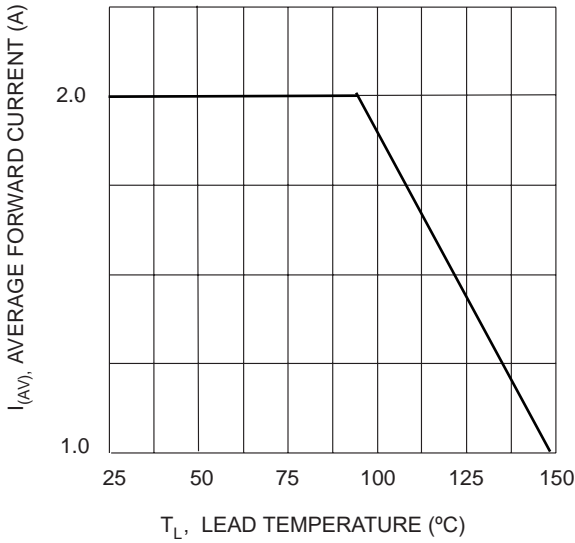


Fig. 1 Forward Current Derating Curve

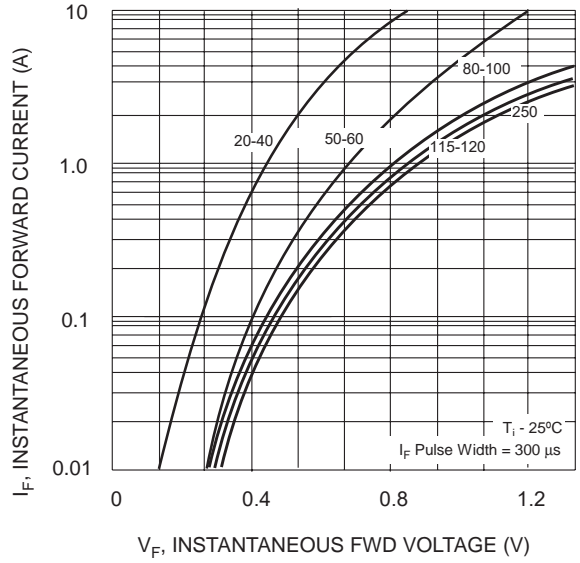


Fig. 2 Typ. Forward Characteristics

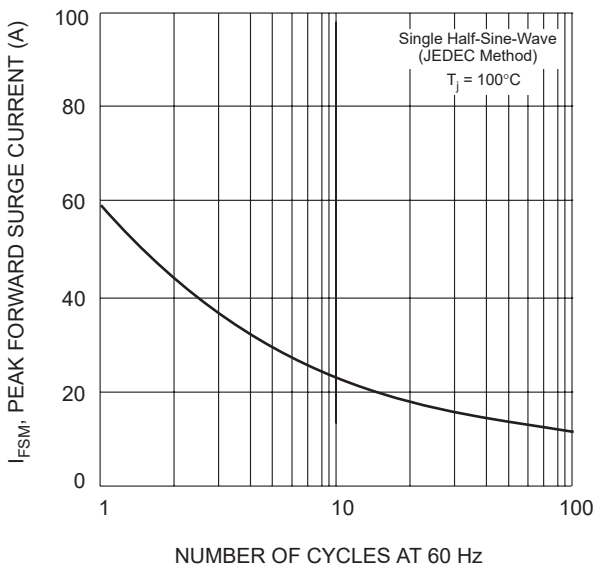


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

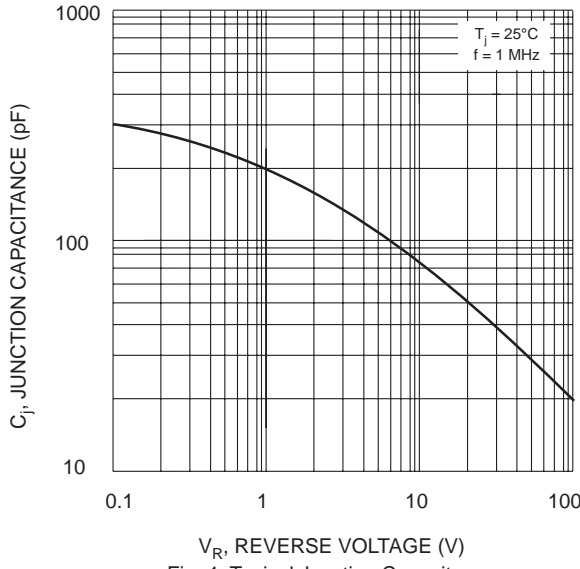


Fig. 4 Typical Junction Capacitance

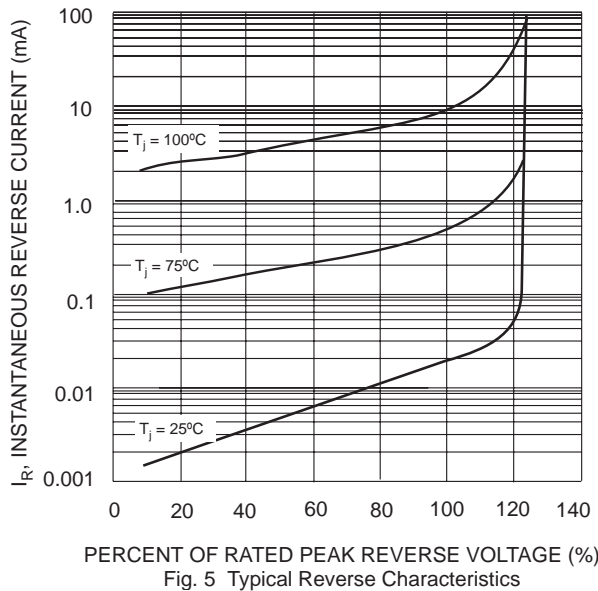
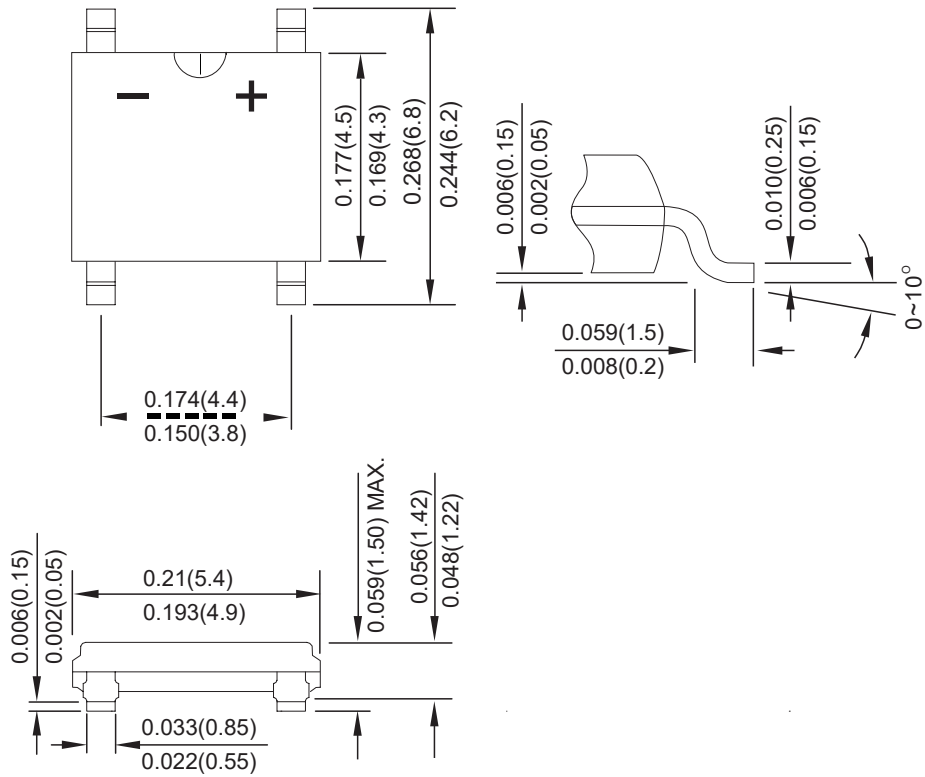


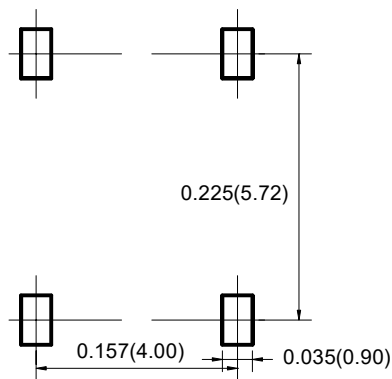
Fig. 5 Typical Reverse Characteristics

**ABS Package Outline Dimensions**



Dimensions in inches and (millimeters)

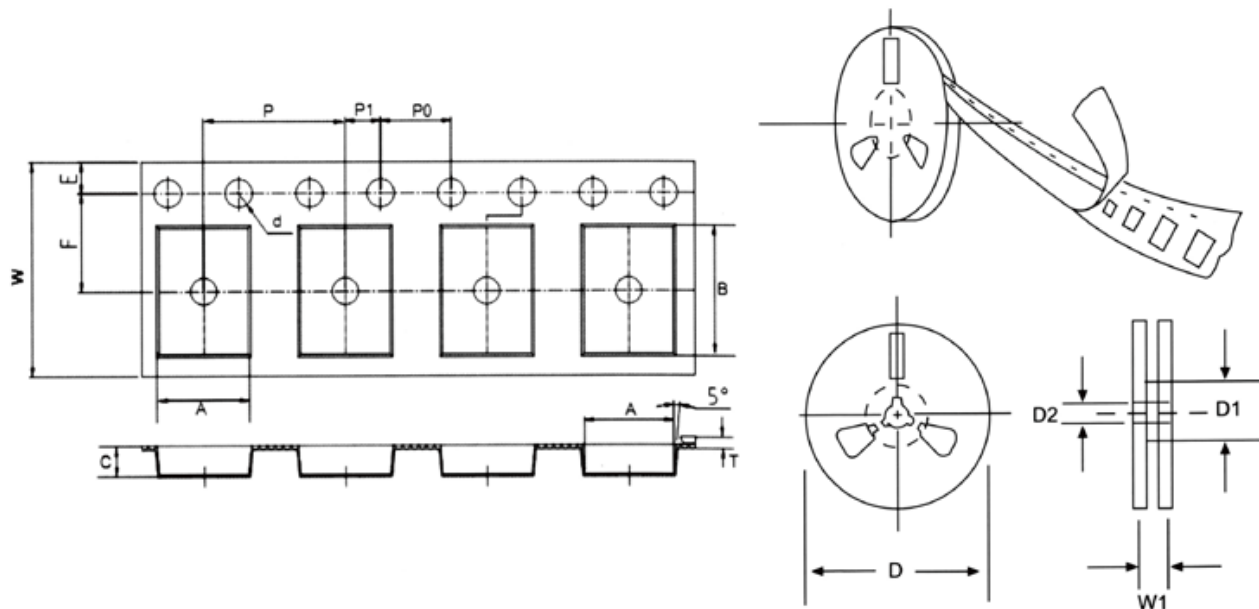
**ABS Suggested Pad Layout**



**Note:**

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

## 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)        |
| Sprocket 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.