



Micro Commercial Components



Micro Commercial Components  
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# SDB151 THRU SDB157

## Features

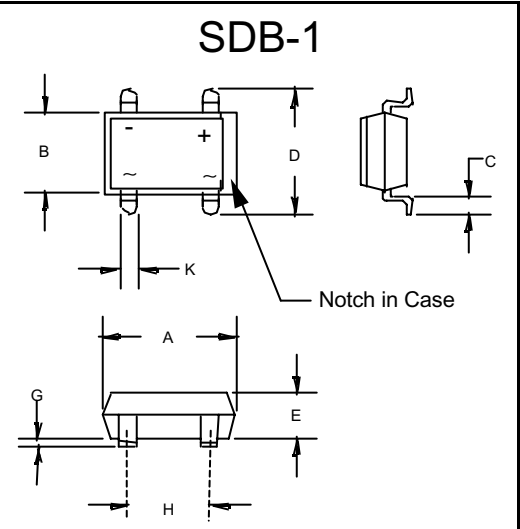
- Surface Mount Package
- Low Profile Package
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SDB151          | SDB151         | 50V                                    | 35V                 | 50V                         |
| SDB152          | SDB152         | 100V                                   | 70V                 | 100V                        |
| SDB153          | SDB153         | 200V                                   | 140V                | 200V                        |
| SDB154          | SDB154         | 400V                                   | 280V                | 400V                        |
| SDB155          | SDB155         | 600V                                   | 420V                | 600V                        |
| SDB156          | SDB156         | 800V                                   | 560V                | 800V                        |
| SDB157          | SDB157         | 1000V                                  | 700V                | 1000V                       |

## 1.5 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

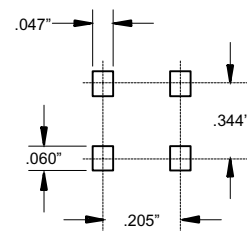


| DIM | INCHES |      | MM   |      | NOTE |
|-----|--------|------|------|------|------|
|     | MIN    | MAX  | MIN  | MAX  |      |
| A   | .316   | .335 | 8.05 | 8.51 |      |
| B   | .245   | .255 | 6.20 | 6.50 |      |
| C   | .040   | .060 | 1.02 | 1.50 |      |
| D   | .360   | .410 | 9.40 | 10.4 |      |
| E   | .102   | .130 | 2.60 | 3.30 |      |
| G   | .003   | .013 | .076 | .330 |      |
| H   | .195   | .205 | 5.00 | 5.20 |      |
| K   | .038   | .047 | 1.00 | 1.20 |      |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

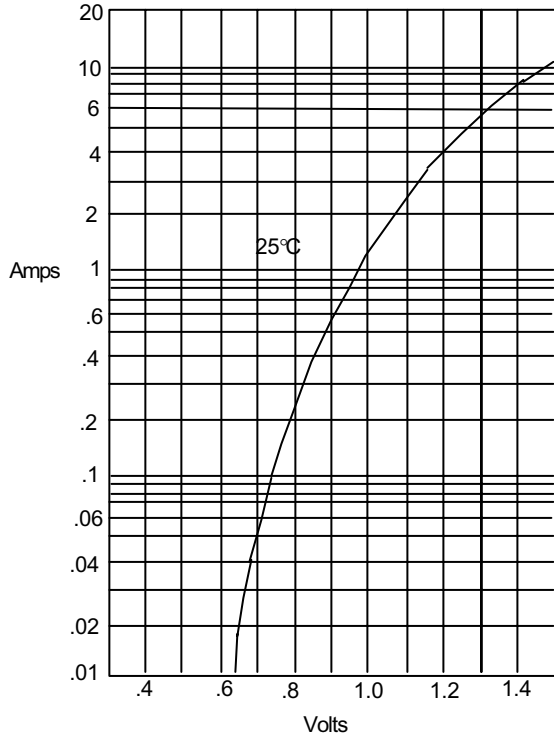
|   |             |                           |   |
|---|-------------|---------------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 1.5 A                     | $T_A = 40^\circ\text{C}$                              |
| Peak Forward Surge Current                              | $I_{FSM}$   | 50A                       | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1.1V                      | $I_{FM} = 1.5\text{A}; T_A = 25^\circ\text{C}$        |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>1.0mA | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$ |
| Typical Junction Capacitance                            | $C_J$       | 25pF                      | Measured at 1.0MHz, $V_R=4.0\text{V}$                 |

### Suggested Solder Pad Layout



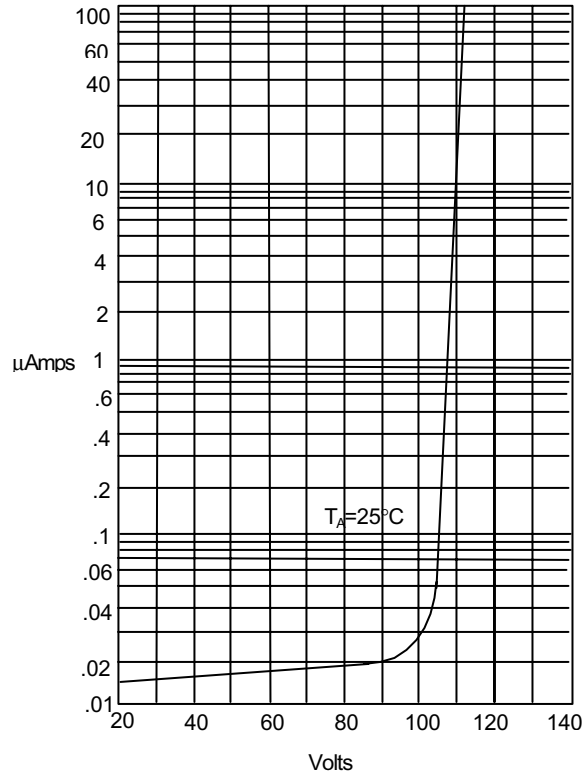
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

Figure 1  
Typical Forward Characteristics



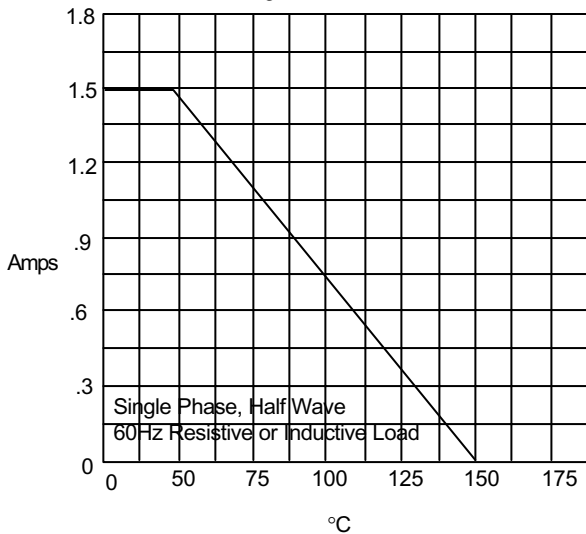
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



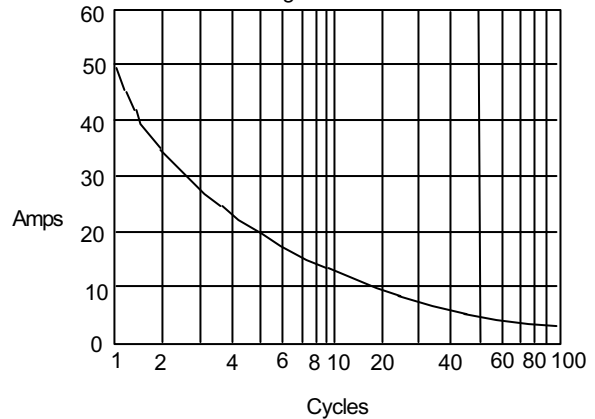
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

## Ordering Information

| Device           | Packing                |
|------------------|------------------------|
| (Part Number)-TP | Tape&Reel;1.5Kpcs/Reel |
| (Part Number)-BP | Bulk; 5K/Box           |

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- Работу по проектам и поставку образцов.
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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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