

## SB10-03A2/SB10-03A3

## 30V, 1.0A Rectifier

### **Applications**

• High frequency rectification (switching regulators, converters, choppers).

#### **Features**

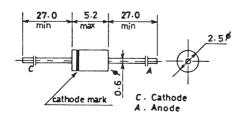
- $\bullet$  Low forward voltage (V<sub>F</sub> max=0.55V).
- Fast reverse recovery time (t<sub>rr</sub> max=30ns).
- Low switching noise.
- Average rectified current (Io=1.0A).

| Absolute Maximum Ratings at Ta=25°C |                 |  |                                |     | unit                 |      |
|-------------------------------------|-----------------|--|--------------------------------|-----|----------------------|------|
| Repetitive Peak Reverse Voltage     | $V_{RRM}$       |  |                                | 30  | V                    |      |
| Nonrepetitive Peak Reverse          | $V_{RSM}$       |  |                                | 35  | V                    |      |
| Surge Voltage                       |                 |  |                                |     |                      |      |
| Average Rectified Current           | Io              | SB10-03A2                                |                                | 1.0 | A                    |      |
|                                     |                 | 50Hz, resistive load, sine wave,         | stive load, sine wave, Ta=50°C |     |                      |      |
|                                     |                 | (L=8mm, 10×10mm <sup>2</sup> print land) |                                |     |                      |      |
|                                     |                 | SB10-03A3                                |                                | 1.0 | A                    |      |
|                                     |                 | 50Hz, resistive load, sine wave,         | Ta=46°C                        |     |                      |      |
|                                     |                 | (L=3mm, 5×5mm <sup>2</sup> print land)   |                                |     |                      |      |
| Surge Forward Current               | $I_{FSM}$       | 50Hz sine wave, 1 cycle                  |                                | 40  | A                    |      |
| Junction Temperature                | Tj              |  |                                | 125 | $^{\circ}\mathrm{C}$ |      |
| Storage Temperature                 | Tstg            |  | -40  to  +125 °C               |     |                      |      |
| Electrical Characteristics          | ot To=25°C      |  | min                            | tvn | max                  | unit |
| Forward Voltage                     |                 | I <sub>F</sub> =1.0A                     | 111111                         | typ | 0.55                 | V    |
| <u> </u>                            | $V_{\rm F}$     | -  |                                |     |                      |      |
| Reverse Current                     | $I_R$           | $V_R=30V$                                |                                |     | 1.0                  | mA   |
| Reverse Recovery Time               | t <sub>rr</sub> | $I_{FM}=1A$ , $-di/dt=50A/\mu s$         |                                |     | 30                   | ns   |
| Thermal Resistance                  | Rth(j-a)        | No fin, device only                      |                                |     | 140                  | °C/W |
| (Junction-Ambient)                  |                 |  |                                |     |                      |      |

[SB10-03A2]

Package Dimensions 1208

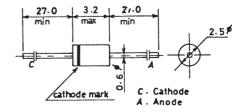
(unit: mm)

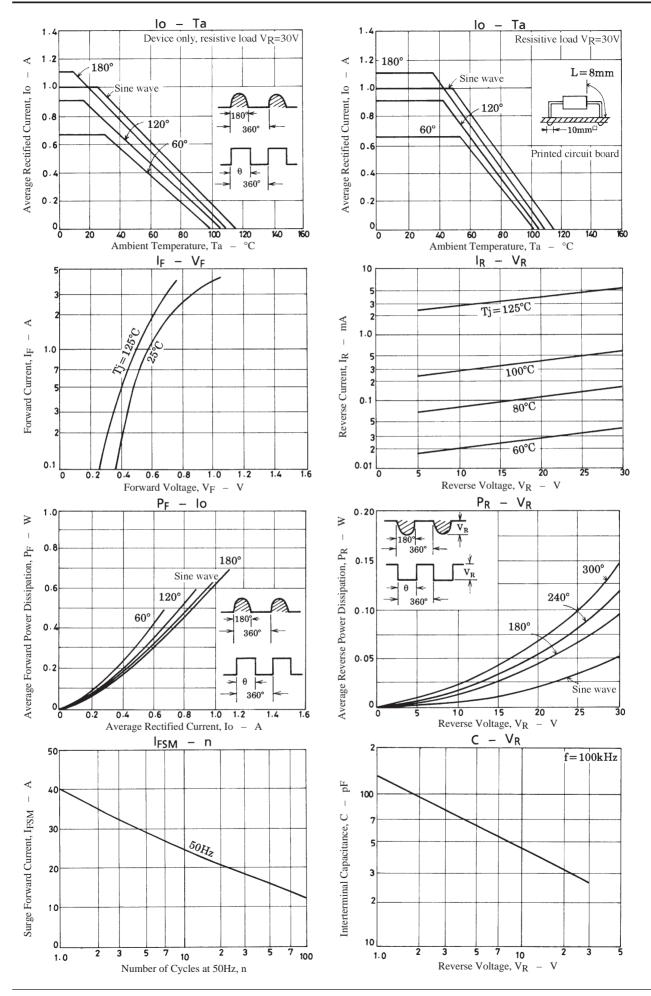


[SB10-03A3]

Package Dimensions 1209

(unit: mm)





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