DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

## TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

## FEATURES

* Surge overload rating - 30 Amperes peak
* Ideal for printed circuit board
* Reliable low cost construction
* Glass passivated junction


## MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Terminals: MIL-STD-202E, Method 208 guaranteed
* Polarity: Symbols molded or marked on body
* Mounting position: Any
* Weight: 0.38 gram


## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $25^{\circ} \mathrm{C}$ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz , resistive or inductive load. For capacitive load, derate current by $20 \%$.

|  |  | SYMBOL | DB101S | DB102S | DB103S | DB104S | DB105S | DB106S | DB107S | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage |  | Vrrm | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Bridge Input Voltage |  | Vrms | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage |  | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Output Current at TA $=40^{\circ} \mathrm{C}$ |  | 10 | 1.0 |  |  |  |  |  |  | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method) |  | IFSM | 30 |  |  |  |  |  |  | Amps |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A DC |  | VF | 1.1 |  |  |  |  |  |  | Volts |
| Maximum DC Reverse Current at rated DC Blocking Voltage per element | @ $\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ | IR | 10 |  |  |  |  |  |  | Amps |
|  | $@ T A=125^{\circ} \mathrm{C}$ |  | 500 |  |  |  |  |  |  |  |
| $I^{2} \mathrm{t}$ Rating for Fusing ( $\mathrm{t}<8.3 \mathrm{~ms}$ ) |  | $1^{2} \mathrm{t}$ | 10 |  |  |  |  |  |  | $\mathrm{A}^{2} \mathrm{Sec}$ |
| Typical Junction Capacitance ( Note1) |  | CJ | 25 |  |  |  |  |  |  | pF |
| Typical Thermal Resistance (Note 2) |  | R日JA | 40 |  |  |  |  |  |  | ${ }^{0} \mathrm{C} / \mathrm{W}$ |
| Operating and Storage Temperature Range |  | TJ,Tsta | -55 to +150 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |

NOTES : 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts
2. Thermal Resistance from Junction to Ambient and from junction to lead mounted on P.C.B. with $0.5 \times 0.5^{\prime \prime}(13 \times 13 \mathrm{~mm})$ copper pads.

