# ABS151 THRU ABS1510 <br> SINGLE PHASE 1.5AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER 

## Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0


## Mechanical Data

- Case: SOPA-4, molded plastic ABS
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number



## Maximum Ratings and Electrical Characteristics

Rating 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 $20 \%$.

| TYPE NUMBER | SYMBOL | ABS151 | ABS152 | ABS154 | ABS156 | ABS158 | ABS1510 | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | Vrrm | 100 | 200 | 400 | 600 | 800 | 1000 | V |
|  | Vrwm |  |  |  |  |  |  |  |
|  | Vdc |  |  |  |  |  |  |  |
| RMS Reverse Voltage | VRms | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current (Note:1) @ $\mathrm{T}_{\mathrm{c}}=100^{\circ} \mathrm{C}$ | IF(AV) | 1.5 |  |  |  |  |  | A |
| Non-Repetitive Peak Forward Surge Current 8.3 ms Single half sine-wave superimposed on rated load (JEDEC Method) | Ifsm | 50 |  |  |  |  |  | A |
| $1^{2} \mathrm{t}$ Rating for Fusing ( $\mathrm{t}<8.3 \mathrm{~ms}$ ) | $\mathrm{I}^{2} \mathrm{t}$ | 10.375 |  |  |  |  |  | $A^{2} \mathrm{~s}$ |
| $\begin{array}{ll}\text { Forward Voltage per element } \\ & \text { @IF=0.75A } \\ & @ 1 F=1.5 \mathrm{~A}\end{array}$ | Vfm | $\begin{gathered} 0.95 \\ 1.0 \end{gathered}$ |  |  |  |  |  | V |
| Peak Reverse Current <br> @ $T_{J}=25^{\circ} \mathrm{C}$ <br> At Rated DC Blocking Voltage <br> @ $\mathrm{T}_{\mathrm{J}}=125^{\circ} \mathrm{C}$ | IR | $\begin{aligned} & 5.0 \\ & 100 \end{aligned}$ |  |  |  |  |  | uA |
| Typical Junction Capacitance (Note2) | CJ | 20 |  |  |  |  |  | pF |
| Typical Thermal Resistance | Reja | 62.5 |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
|  | Rөль | 25 |  |  |  |  |  |  |
| Operating and Storage Temperature Range | TJ,Tstg | -55 to +150 |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |

Note:1. Mounted on glass epoxy PC board with $1.3 \mathrm{~mm}^{2}$ solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V D.C.

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Fig. 3 Maximum Peak Forward Surge Current


Fig. 5 Typical Junction Capacitance


FIG. 2 TYPICAL FORWARD CHARACTERISTICS


Fig. 4 Typical Reverse Characteristics


ABS PAD LAYOUT


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