| BY396 thru BY399 |  |
| :---: | :---: |
| 3.0 AMP FAST RECOVERY RECTFIERS | $\mathbf{I O}$ |


| FEATURES <br> * Low forward voltage drop <br> * High current capability <br> * High reliability <br> * High surge current capability <br> MECHANICAL DATA <br> * Case: Molded plastic <br> * Epoxy: UL 94V-0 rate flame retardant <br> * Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed <br> * Polarity: Color band denotes cathode end <br> * Mounting position: Any <br> * Weight: 1.10 grams |  | VOLTAGE RANGE <br> 50 to 1000 Volts CURRENT <br> 3.0 Ampere |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | N. <br> 9.5) <br> 25.4) <br> ters) |  |
| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS <br> Rating $25^{\circ} \mathrm{C}$ ambient temperature uniess otherwies specified. <br> Single phase half wave, 60 Hz , resistive or inductive load. <br> For capacitive load, derate current by $20 \%$. |  |  |  |  |  |
| TYPE NUMBER | By396 | BY397 | BY398 | By399 | UNITS |
| Maximum Recurrent Peak Reverse Voltage | 100 | 200 | 400 | 800 | V |
| Maximum RMS Voltage | 70 | 140 | 280 | 560 | v |
| Maximum DC Blocking Voltage | 100 | 200 | 400 | 800 | v |
| Maximum Average Forward Rectified Current $.375^{\prime \prime}(9.5 \mathrm{~mm})$ Lead Length at $\mathrm{Ta}=75^{\circ} \mathrm{C}$ |  |  |  |  | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) |  |  |  |  | A |
| Maximum Instantaneous Forward Voltage at 3.0A |  |  |  |  | v |
| Maximum DC Reverse Current $\quad \mathrm{Ta}=25^{\circ} \mathrm{C}$ |  |  |  |  | A |
| at Rated DC Blocking Voltage $\quad \mathrm{T}=100^{\circ} \mathrm{C}$ |  |  |  |  | A |
| Maximum Reverse Recovery Time (Note 1) |  | 150 |  | 250 | ns |
| Typical Junction Capacitance (Note 2) |  |  |  |  | pF |
| Operating and Storage Temperature Range Tj, TSTG |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| NOTES: <br> 1. Reverse Recovery Time test condition: $\mathrm{IF}=0.5 \mathrm{~A}, \mathrm{IR}=1.0 \mathrm{~A}, \mathrm{IRR}=0.25 \mathrm{~A}$ <br> 2. Measured at 1 MHz and applied reverse voltage of 4.0 V D.C. |  |  |  |  |  |

