## SR520/SB520 THRU SR5200/SB5200

5.0AMPS. SCHOTTKY BARRIER RECTIFIERS

## FEATURE

. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High surge capability
. High temperature soldering guaranteed
$260^{\circ} \mathrm{C} / 10 \mathrm{sec} / 0.375^{\prime \prime}$ lead length at 5 lbs tension

## MECHANICAL DATA

. Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
. Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
. Polarity: color band denotes cathode
. Mounting position: any

## DO-27/DO-201AD



Dimensions in inches and (millimeters)

## 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 $20 \%$

| Type Number |  | SYMBOL | $\begin{gathered} \text { SR } \\ 520 \end{gathered}$ | $\begin{gathered} \hline \text { SR } \\ 530 \\ \hline \end{gathered}$ | $\begin{gathered} \text { SR } \\ 540 \end{gathered}$ | $\begin{gathered} \hline \text { SR } \\ 550 \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { SR } \\ 560 \\ \hline \end{gathered}$ | $\begin{array}{r} \hline \text { SR } \\ \mathbf{5 8 0} \\ \hline \end{array}$ | $\begin{array}{r} \hline \text { SR } \\ \mathbf{5 9 0} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { SR } \\ \mathbf{5 1 0 0} \\ \hline \end{array}$ | $\begin{gathered} \hline \text { SR } \\ 5150 \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { SR } \\ \text { 5200 } \\ \hline \end{array}$ | units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { SB } \\ \mathbf{5 2 0} \end{gathered}$ | $\begin{gathered} \text { SB } \\ 530 \end{gathered}$ | $\begin{gathered} \text { SB } \\ \mathbf{5 4 0} \end{gathered}$ | $\begin{gathered} \text { SB } \\ 550 \end{gathered}$ | $\begin{gathered} \text { SB } \\ \mathbf{5 6 0} \end{gathered}$ | $\begin{gathered} \hline \text { SB } \\ \mathbf{5 8 0} \end{gathered}$ | $\begin{gathered} \hline \text { SB } \\ \mathbf{5 9 0} \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { SB } \\ 5100 \end{array}$ | $\begin{gathered} \hline \text { SB } \\ \mathbf{5 1 5 0} \end{gathered}$ | $\begin{gathered} \hline \text { SB } \\ \mathbf{5 2 0 0} \end{gathered}$ |  |
| Maximum Recurrent Peak Reverse Voltage |  |  | $V_{\text {RRM }}$ | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum RMS Voltage |  | $V_{\text {RMS }}$ | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum DC blocking Voltage |  | $V_{\text {DC }}$ | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current $.375^{\prime \prime}(9.5 \mathrm{~mm})$ lead length at $\mathrm{T}_{\mathrm{L}}=90^{\circ} \mathrm{C}$ |  | $I_{\text {F (AV) }}$ | 5.0 |  |  |  |  |  |  |  |  |  | A |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) |  | $\boldsymbol{I}_{\text {FSM }}$ | 120.0 |  |  |  |  |  |  |  |  |  | A |
| Maximum Forward Voltage at 5.0A DC |  | $V_{\text {F }}$ | 0.45 |  |  |  |  |  | 0.85 |  |  | 95 | V |
| Maximum DC Reverse Current at rated DC blocking voltage | $\begin{aligned} & @ \mathrm{~T}_{\mathrm{A}}=25^{\circ} \mathrm{C} \\ & @ \mathrm{~T}_{\mathrm{A}}=100^{\circ} \mathrm{C} \end{aligned}$ | $I_{\text {R }}$ |  | 40.0 |  |  |  | $0.1$ |  |  |  |  | mA |
| Typical Junction Capacitance (Note 1) |  | $C_{\text {J }}$ | 500 |  |  |  |  | 112 |  |  |  |  | pF |
| Typical Thermal Resistance (Note 2) |  | $\boldsymbol{R}_{(\mathrm{JA})}$ | 40 |  |  |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Storage Temperature |  | $T_{\text {STG }}$ | -55 to +150 |  |  |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Operation Junction Temperature |  | $T_{\text {J }}$ | -55 to +125 |  |  | -55 to +150 |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |

## Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc
2. Thermal Resistance from Junction to Ambient at 0.375 " ( 9.5 mm ) lead length, vertical P.C. Board Mounted.
