## S32BF THRU S320BF <br> 3.0AMPS. SCHOTTKY BARRIER RECTIFIERS

## FEATURE

. For surface mounted application
. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High surge current capability
. High temperature soldering guaranteed:
$260^{\circ} \mathrm{C} / 10$ seconds at terminals.

## MECHANICAL DATA

. Terminal: Solder plated
. Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
. Polarity: color band denotes cathode
. Packaging:12mm tape per EIA STD RS-481

## 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 | S32BF | S34BF | S36BF | S310BF | S315BF | S320BF | units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage | $V_{\text {RRM }}$ | 20 | 40 | 60 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | $V_{\text {RMS }}$ | 14 | 28 | 42 | 70 | 105 | 140 | V |
| Maximum DC blocking Voltage | $V_{\text {DC }}$ | 20 | 40 | 60 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current at $\mathrm{T}_{\mathrm{L}}=90^{\circ} \mathrm{C}$ | $I_{\text {F (AV) }}$ | 3.0 |  |  |  |  |  | A |
| Peak Forward Surge Current 8.3 ms single half sine- wave superimposed on rated load (JEDEC method) | $I_{\text {FSM }}$ | 80.0 |  |  |  |  |  | A |
| Maximum Forward Voltage at 3.0A DC | $V_{\text {F }}$ | 0.45 | 0.55 | 0.70 | 0.85 |  |  | V |
| Maximum DC Reverse Current $@ \mathrm{~T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ | $I_{\text {R }}$ | 0.5 |  |  | 0.1 |  |  | mA |
| at rated DC blocking voltage $@ \mathrm{~T}_{\mathrm{A}}=100^{\circ} \mathrm{C}$ |  | 40.0 |  |  | 10.0 |  |  |  |
| Typical Junction Capacitance (Note1) | $C_{\text {J }}$ | 300 |  |  | 72 |  |  | pF |
| Typical Thermal Resistance (Note 2) | $\boldsymbol{R}_{(\mathrm{JA})}$ | 75 |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
|  | $\boldsymbol{R}_{(\mathrm{JL})}$ | 22 |  |  |  |  |  |  |
| Storage Temperature | $T_{\text {STG }}$ | -55 to +150 |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Operation Junction Temperature | $T_{J}$ | -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 and Lead, Mounted.Measured on P.C. Board with $0.2 \times 0.2^{\prime \prime}(5.0 \times 5.0 \mathrm{~mm})$ Copper Pad Areas.

