## SCHOTTKY BARRIER RECTIFIER

## VOLTAGE RANGE 20 to 200 Volts CURRENT 1.0 Ampere

## FEATURES

* Low switching noise
* Low forward voltage drop
* High current capability
* High switching capability
* High surge capabitity
* High reliability


## MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.33 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 $20 \%$.


MAXIMUM RATINGS (@ TA=25 ${ }^{\circ} \mathrm{C}$ unless otherwise noted)

| RATINGS | SYMBOL | SR120 | SR130 | SR140 | SR150 | SR160 | SR180 | SR1100 | SR1150 | SR1200 | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | $\mathrm{V}_{\text {RMS }}$ | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | $V_{D C}$ | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum Average Forward Rectified Current at Derating Lead Temperature | 10 | 1.0 |  |  |  |  |  |  |  |  | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $\mathrm{I}_{\text {FSM }}$ | 40 |  |  |  |  |  |  |  |  | Amps |
| Typical Thermal Resistance (Note 1) | $\mathrm{R}_{\theta \mathrm{JA}}$ | 50 |  |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
|  | $\mathrm{R}_{\theta \mathrm{JL}}$ | 15 |  |  |  |  |  |  |  |  |  |
| Typical Junction Capacitance (Note 3) | $\mathrm{C}_{J}$ | 110 |  |  |  |  |  |  |  |  | pF |
| Operating Temperature Range | $\mathrm{T}_{\mathrm{J}}$ | 150 |  |  |  |  |  |  |  |  | ${ }^{0} \mathrm{C}$ |
| Storage Temperature Range | TSTG | -55 to +150 |  |  |  |  |  |  |  |  | ${ }^{\circ} \mathrm{C}$ |

ELECTRICAL CHARACTERISTICS(@TA $=25^{\circ} \mathrm{C}$ unless otherwise noted)

| CHARACTERISTICS |  | SYMBOL | SR120 | SR130 | SR140 | SR150 | SR160 | SR180 | SR1100 | SR1150 | SR1200 | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Instantaneous Forward Voltage at 1.0A DC |  | $V_{F}$ |  | . 55 |  | 7 |  |  | . 8 |  |  | Volts |
| Maximum Average Reverse Current | @ $T_{A}=25^{\circ} \mathrm{C}$ | $\mathrm{I}_{\mathrm{R}}$ | 0.2 |  |  |  |  |  |  |  |  | mA |
| at Rated DC Blocking Voltage | $@ T_{A}=100^{\circ} \mathrm{C}$ |  | 2 |  |  |  |  |  |  |  |  | mA |
| NOTES : 1. Thermal Resistance : At 9.5 mm lead lengths, PCB mounted. <br> 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts. <br> 3. "Fully ROHS compliant", "100\% Sn plating (Pb-free)". |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} 2006-11 \\ \text { REV:B } \end{gathered}$ |

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

## RATING AND CHARACTERISTICS CURVES (SR120 THRU SR1200)




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