## TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## VOLTAGE RANGE - 50 to 60 Volts

## 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: UL 94V-O rate flame retardant
* Lead MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* 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 $20 \%$.


|  | SYMBOL | SR150 | SR160 | SR180 | SR1100 | UNITS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 60 | 80 | 100 | Volts |
| Maximum RMS Voltage | VRms | 35 | 42 | 56 | 70 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 60 | 80 | 100 | 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) | IFSM | 40 |  |  |  | Amps |
| Maximum Instantaneous Forward Voltage at 1.0A DC | $V_{F}$ |  |  |  |  | Volts |
| Maximum DC Reverse Current $@^{\text {a }}$ ( $=25^{\circ} \mathrm{C}$ | IR | 1.0 |  |  |  | mAmps |
| at Rated DC Blocking Voltage $\quad$ @ $\mathrm{T}_{\mathrm{A}}=100^{\circ} \mathrm{C}$ |  | 10 |  |  |  | mAmps |
| Typical Thermal Resistance (Note 1) | R $\theta$ JA | 50 |  |  |  | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| Typical Junction Capacitance (Note 2) | CJ | 11 |  |  |  | pF |
| Operating Temperature Range | TJ | -50 to +125 |  |  |  | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | Tstg | -65 to +150 |  |  |  | ${ }^{\circ} \mathrm{C}$ |

[^0]2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS


FIG. 4 - TYPICAL JUNCTION CAPACITANCE


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS


FIG. 5 MAXIMUM NON REPETITIVE FORWARD SURGE CURRENT



[^0]:    NOTES : 1. Thermal Resistance (Junction to Ambient), . $24 \mathrm{in}_{2}$ ( $6.0 \mathrm{~mm}_{2}$ ) copper pads to each terminal.

