



## SCHOTTKY BARRIER RECTIFIER

SR202 THRU SR210

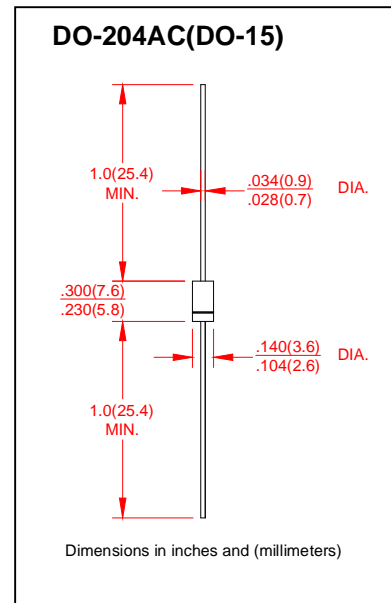
VOLTAGE RANGE 20 to 100 Volts  
CURRENT 2.0 Ampere

### FEATURES

- Fast switching
- Low forward voltage
- Low power loss for high efficiency
- High surge capability
- High temperature soldering guaranteed  
250°C/10 seconds, 0.375" (9.5mm) lead length

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: solderable per MIL-STD-202E Method 208C
- Polarity :Color band denoted cathode end
- Mounting position: Any
- Weight: 0.014ounce, 0.39 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

|  | SYMBOLS         | SR202                     | SR203 | SR204 | SR205 | SR206 | SR208 | SR210 | UNIT                      |
|--|-----------------|---------------------------|-------|-------|-------|-------|-------|-------|---------------------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 20                        | 30    | 40    | 50    | 60    | 80    | 100   | Volts                     |
| Maximum RMS Voltage  | $V_{RMS}$       | 14                        | 21    | 28    | 35    | 42    | 56    | 70    | Volts                     |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 20                        | 30    | 40    | 50    | 60    | 80    | 100   | Volts                     |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) lead length ,(NOTE 1)<br>$T_L = 100^\circ\text{C}$ | $I_{(AV)}$      | 2.0                       |       |       |       |       |       |       | Amps                      |
| Peak Forward Surge Current<br>8.3mS single half sine-wave superimposed on<br>rated load (JEDEC method)         | $I_{FSM}$       | 60                        |       |       |       |       |       |       | Amps                      |
| Maximum Instantaneous Forward Voltage @2.0A  | $V_F$           | 0.55                      |       | 0.70  |       | 0.85  |       | Volts |                           |
| Maximum DC Reverse Current at rated<br>DC blocking voltage per element (Note1)                                 | $I_R$           | $T_A = 25^\circ\text{C}$  |       |       |       |       |       |       | $\mu\text{A}$             |
|  |                 | $T_A = 100^\circ\text{C}$ |       |       |       |       |       |       |                           |
| Typical Junction Capacitance (NOTE 3)  | $C_J$           | 200                       |       |       |       |       |       |       | pF                        |
| Typical Thermal Resistance (NOTE 2)  | $R_{\theta JA}$ | 20                        |       |       |       |       |       |       | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range   | $T_J$           | (-55 to +150)             |       |       |       |       |       |       | $^\circ\text{C}$          |
| Storage Temperature Range  | $T_{STG}$       | (-55 to +150)             |       |       |       |       |       |       | $^\circ\text{C}$          |

#### Notes:

1. Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle
2. Thermal Resistance from junction to ambient P.C.B. mounted with 0.375" (9.5mm) lead length with 1.5"  $\times$  1.5" (38  $\times$  38mm) copper pads
3. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.



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## RATING AND CHARACTERISTIC CURVES SR202 THRU SR210

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

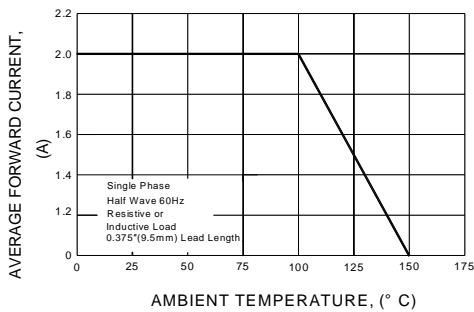


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

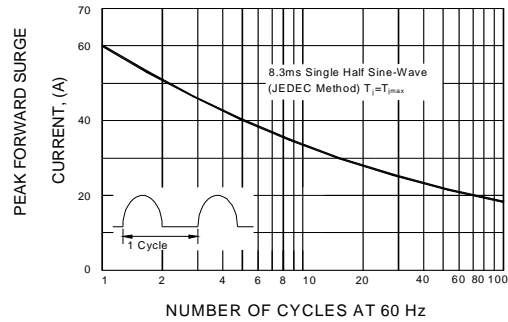


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

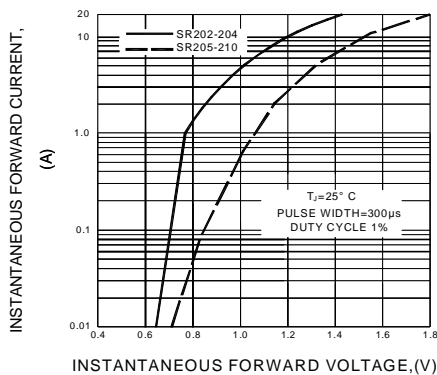


FIG.4-TYPICAL REVERSE CHARACTERISTICS

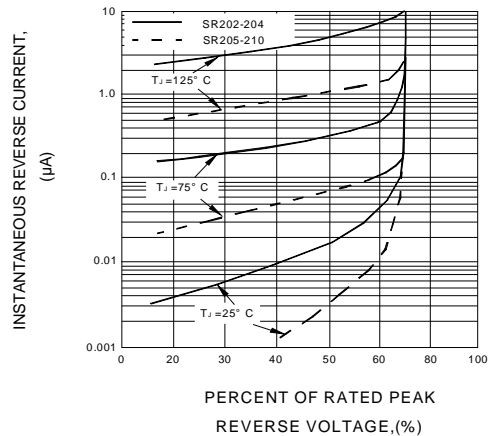


FIG.5-TYPICAL JUNCTION CAPACITANCE

