



## SCHOTTTKY BARRIER RECTIFIER

SR220 THRU SR2100

VOLTAGE RANGE 20 to 100 Volts

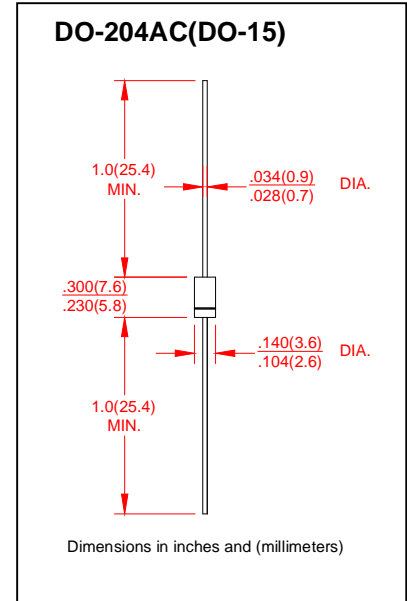
CURRENT 2.0 Ampere

### 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         | SR220               | SR230 | SR240 | SR250 | SR260 | SR280 | SR2100 | 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>$T_L = 100^\circ C$ | $I_{(AV)}$      | 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)                            | $I_R$           | $T_A = 25^\circ C$  |       |       |       |       |       |        | $\mu A$      |
|  |                 | $T_A = 100^\circ C$ |       |       |       |       |       |        |              |
| Typical Junction Capacitance (NOTE 3)  | $C_J$           | 200                 |       |       |       |       |       |        | pF           |
| Typical Thermal Resistance (NOTE 2)  | $R_{\theta JA}$ | 20                  |       |       |       |       |       |        | $^\circ C/W$ |
| Operating Junction Temperature Range   | $T_J$           | (-55 to +150)       |       |       |       |       |       |        | $^\circ C$   |
| Storage Temperature Range  | $T_{STG}$       | (-55 to +150)       |       |       |       |       |       |        | $^\circ C$   |

#### Notes:

1. Pulse test: 300  $\mu s$  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

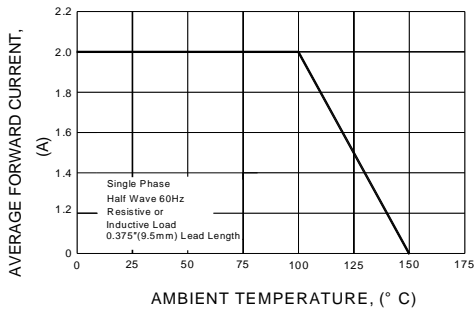


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

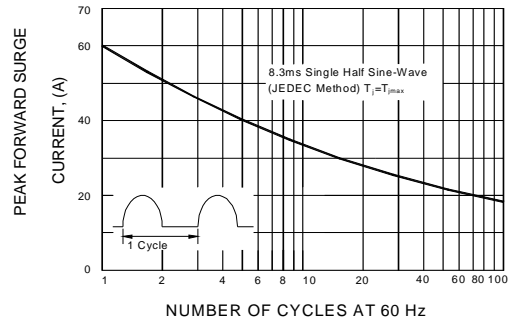


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

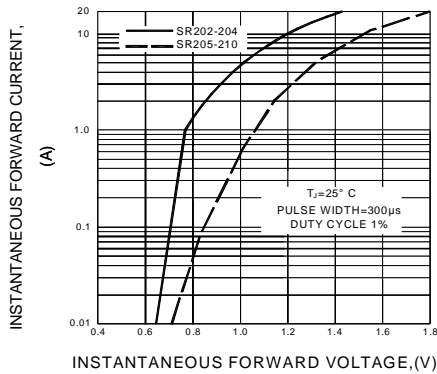


FIG.4-TYPICAL REVERSE CHARACTERISTICS

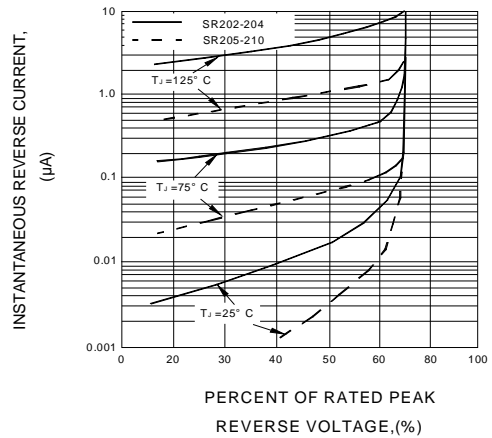


FIG.5-TYPICAL JUNCTION CAPACITANCE

