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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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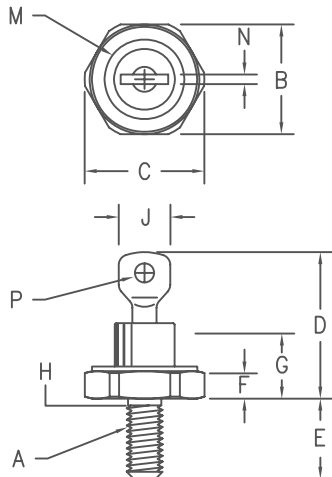
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# Silicon Power Rectifier S/R204 Series



**Notes:**

1. 10-32 UNF3A
2. Full threads within 2 1/2 threads
3. Standard Polarity: Stud is Cathode  
Reverse Polarity: Stud is Anode

| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | ---     | ---     | ---        | ---     | 1     |
| B    | .424    | .437    | 10.77      | 11.10   |       |
| C    | ---     | .505    | ---        | 12.82   |       |
| D    | .600    | .800    | 15.24      | 20.32   |       |
| E    | .422    | .453    | 10.72      | 11.50   |       |
| F    | .075    | .175    | 1.91       | 4.44    |       |
| G    | ---     | .405    | ---        | 10.29   |       |
| H    | .163    | .189    | 4.15       | 4.80    | 2     |
| J    | ---     | .310    | ---        | 7.87    |       |
| M    | ---     | .350    | ---        | 8.89    | Dia   |
| N    | .020    | .065    | .510       | 1.65    |       |
| P    | .070    | .100    | 1.78       | 2.54    | Dia   |

## D0203AA (D04)

| Microsemi Catalog Number Standard | JEDEC Numbers  | Peak Reverse Voltage |
|-----------------------------------|--|----------------------|
|                                   | 1N1199, 1N1199A, 1N1199B   | 50V                  |
| *S20410                           | 1N1200, 1N1200A, 1N1200B<br>1N1201, 1N1201A, 1N1201B                     | 100V<br>150V         |
| *S20420                           | 1N1124,A, 1N1202, 1N1202A, 1N1202B<br>1N1125,A, 1N1203, 1N1203A, 1N1203B | 200V<br>300V         |
| *S20440                           | 1N1126,A, 1N1204, 1N1204A, 1N1204B<br>1N1127,A, 1N1205, 1N1205A, 1N1205B | 400V<br>500V         |
| *S20460                           | 1N1128,A, 1N1206, 1N1206A, 1N1206B                                       | 600V                 |
| *S20480                           |  | 800V                 |
| *S204100                          |  | 1000V                |
| *S204120                          |  | 1200V                |

\*Change S to R in part number for Reverse Polarity  
For JEDEC numbers add R to part number for Reverse Polarity  
NOTE: The Reverse Polarity For the A & B versions may be listed as RA or RB instead of AR or BR

- Glass Passivated Die
- Low Forward Voltage
- 250A Surge Rating
- Glass to metal seal construction
- $V_{RRM}$  to 1200V
- Low cost Non-RoHS package

### Electrical Characteristics

|                                     |                     |  |
|-------------------------------------|---------------------|--|
| Average forward current             | $I_F(AV)$ 12 Amps   | $T_C = 170^\circ C$ , half sine wave, $R_{\theta JC} = 2.5^\circ C/W$<br>8.3ms, half sine, $T_J = 200^\circ C$ |
| Maximum surge current               | $I_{FSM}$ 250 Amps  |  |
| Max $I^2 t$ for fusing              | $I^2 t$ 260 $A^2 s$ |  |
| Max peak forward voltage            | $V_{FM}$ 1.2 Volts  | $I_{FM} = 30A$ ; $T_J = 25^\circ C$ *  |
| Max peak reverse current            | $I_{RM}$ 10 $\mu A$ | $V_{RRM}, T_J = 25^\circ C$  |
| Max peak reverse current            | $I_{RM}$ 1.0 mA     | $V_{RRM}, T_J = 150^\circ C$ *   |
| Max Recommended Operating Frequency | 10kHz               |  |

\*Pulse test: Pulse width 300  $\mu sec$ . Duty cycle 2%

### Thermal and Mechanical Characteristics

|                               |                 |                                   |
|-------------------------------|-----------------|-----------------------------------|
| Storage temperature range     | $T_{STG}$       | $-65^\circ C$ to $200^\circ C$    |
| Operating junction temp range | $T_J$           | $-65^\circ C$ to $200^\circ C$    |
| Maximum thermal resistance    | $R_{\theta JC}$ | 2.5 $^\circ C/W$ Junction to Case |
| Mounting torque               |                 | 25-30 inch pounds                 |
| Weight                        |                 | .16 ounces (5.0 grams) typical    |

# S/R204

Figure 1  
Typical Forward Characteristics

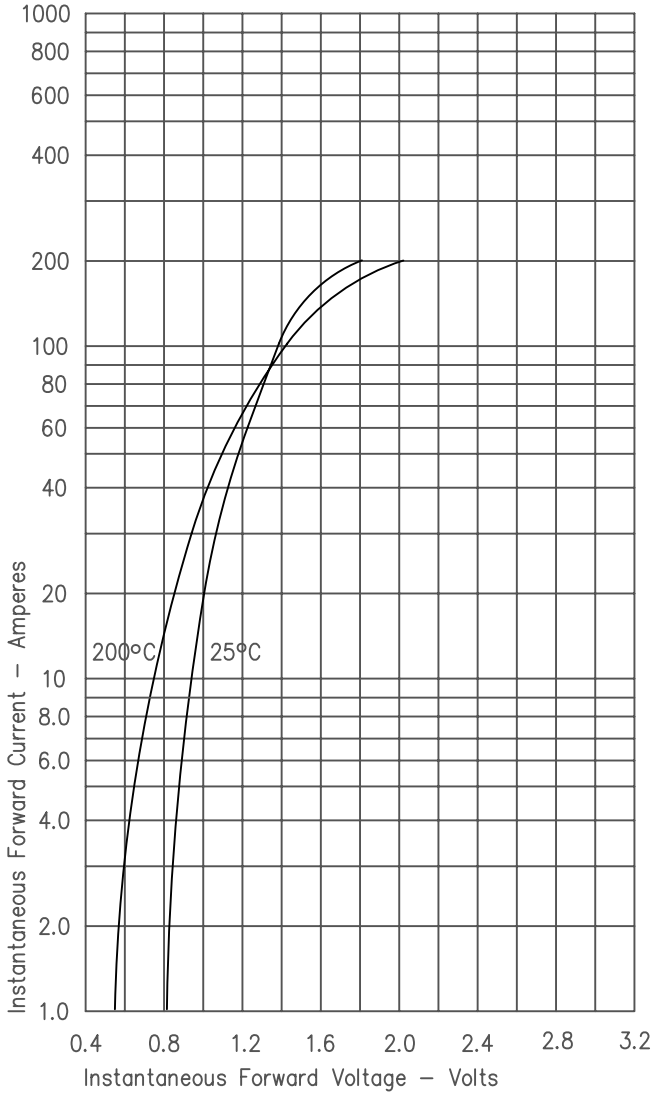


Figure 3  
Forward Current Derating

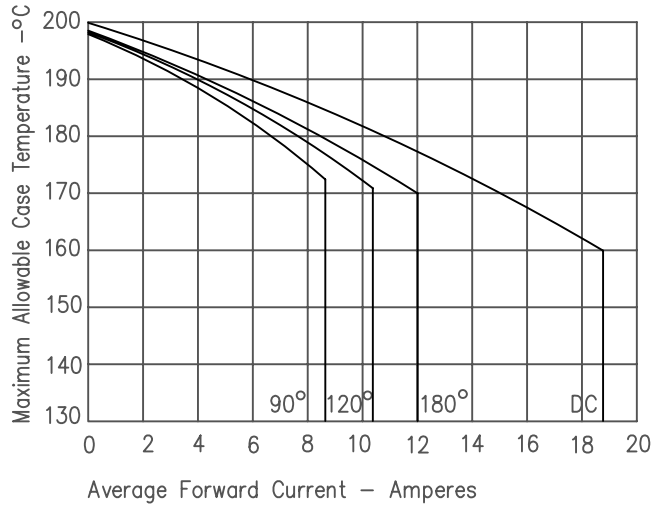


Figure 4  
Maximum Forward Power Dissipation

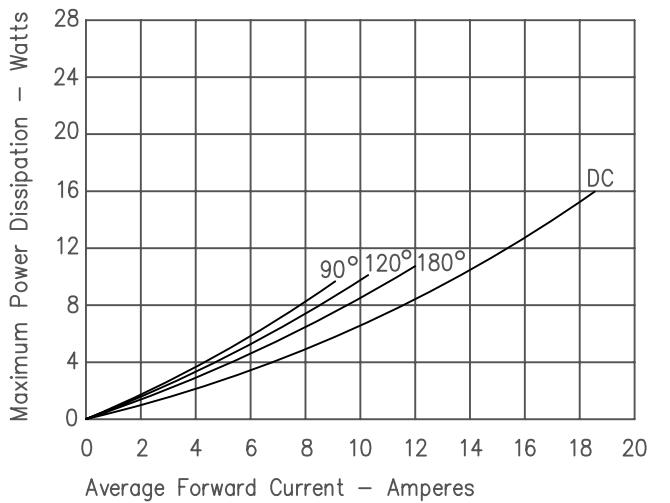


Figure 2  
Typical Reverse Characteristics

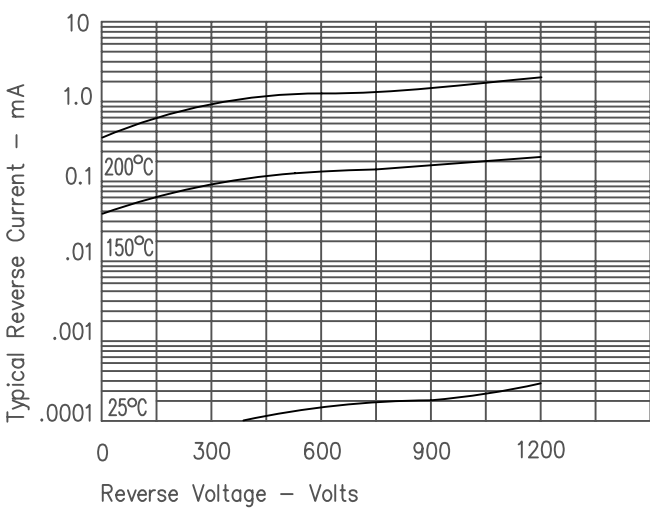


Figure 5  
Transient Thermal Impedance

