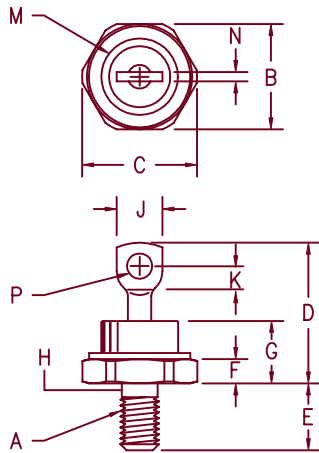


# Silicon Power Rectifier S/R34 Series



- Notes:
1. Full threads within 2 1/2 threads
  2. Standard Polarity: Stud is Cathode  
Reverse Polarity: Stud is Anode

| Dim. | Inches  |         | Millimeter |         | Notes  |
|------|---------|---------|------------|---------|--------|
|      | Minimum | Maximum | Minimum    | Maximum |        |
| A    | ----    | ----    | ----       | ----    | 1/4-28 |
| B    | .677    | .687    | 17.19      | 17.44   |        |
| C    | ----    | .793    | ----       | 20.14   |        |
| D    | ----    | 1.00    | ----       | 25.40   |        |
| E    | .427    | .447    | 10.84      | 11.35   |        |
| F    | .115    | .200    | 2.92       | 5.08    |        |
| G    | ----    | .450    | ----       | 11.43   |        |
| H    | .220    | .249    | 5.59       | 6.32    | 1      |
| J    | ----    | .375    | ----       | 9.52    |        |
| K    | .156    | ----    | 3.97       | ----    |        |
| M    | ----    | .667    | ----       | 16.94   | Dia    |
| N    | ----    | .080    | ----       | 2.03    |        |
| P    | .140    | .175    | 3.56       | 4.44    | Dia    |

D0203AB (D05)

Microsemi  
Catalog Number  
Standard

\*S3410  
\*S3420  
\*S3440  
\*S3460  
\*S3480  
\*S34100  
\*S34120  
\*S34140  
\*S34160

Peak Reverse  
Voltage

100V  
200V  
400V  
600V  
800V  
1000V  
1200V  
1400V  
1600V

\*Change S to R in part number for Reverse Polarity

- Glass Passivated Die
- 800A surge rating
- Glass to metal seal construction
- $V_{RRM}$  to 1600V

## Electrical Characteristics

|                                     |  |  |
|-------------------------------------|--|--|
| Average forward current             | IF(AV) 45 Amps                         | $T_C = 123^\circ\text{C}$ , half sine wave, $R_{\theta JC} = 1.75^\circ\text{C/W}$ |
| Maximum surge current               | IFSM 800 Amps                          | 8.3ms, half sine, $T_J = 200^\circ\text{C}$  |
| Max I <sup>2</sup> t for fusing     | I <sup>2</sup> t 2600 A <sup>2</sup> s |  |
| Max peak forward voltage            | V <sub>FM</sub> 1.15 Volts             | I <sub>FM</sub> = 90A: T <sub>J</sub> = 25°C*                                      |
| Max peak reverse current            | I <sub>RM</sub> 10 μA                  | V <sub>RRM</sub> , T <sub>J</sub> = 25°C   |
| Max peak reverse current            | I <sub>RM</sub> 2.0 mA                 | V <sub>RRM</sub> , T <sub>J</sub> = 150°C  |
| Max Recommended Operating Frequency | 10kHz                                  |  |

\*Pulse test: Pulse width 300 μsec. Duty cycle 2%

## Thermal and Mechanical Characteristics

|                               |                  |                              |
|-------------------------------|------------------|------------------------------|
| Storage temperature range     | T <sub>STG</sub> | -65°C to 200°C               |
| Operating junction temp range | T <sub>J</sub>   | -65°C to 200°C               |
| Maximum thermal resistance    | R <sub>θJC</sub> | 1.75°C/W Junction to Case    |
| Mounting torque               |                  | 25-30 inch pounds            |
| Weight                        |                  | .5 ounces (14 grams) typical |

3-25-03 Rev. 2

# S/R34

Figure 1  
Typical Forward Characteristics

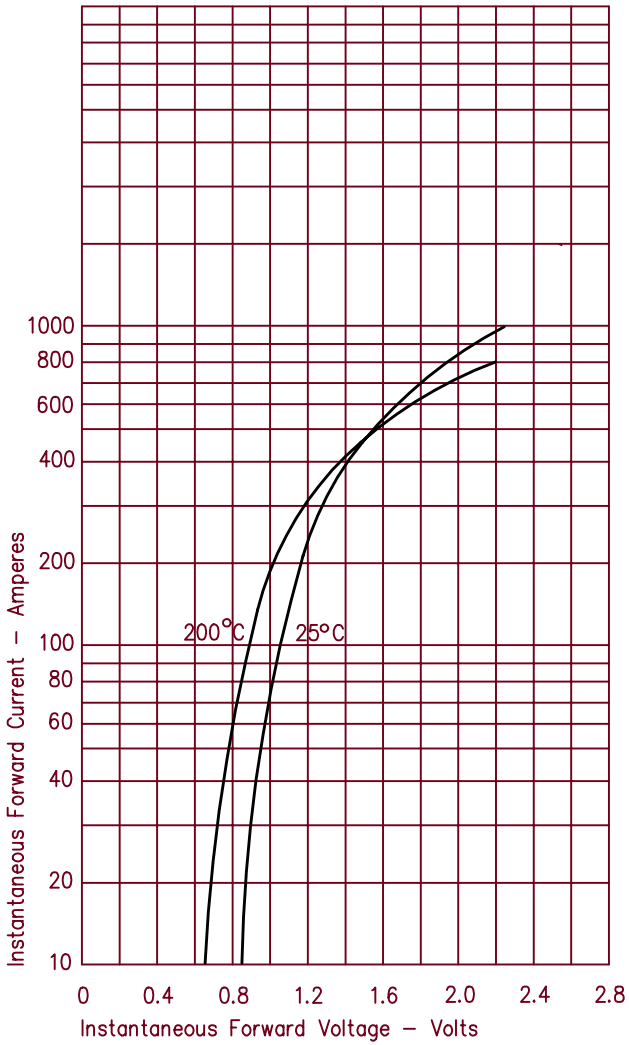


Figure 3  
Forward Current Derating

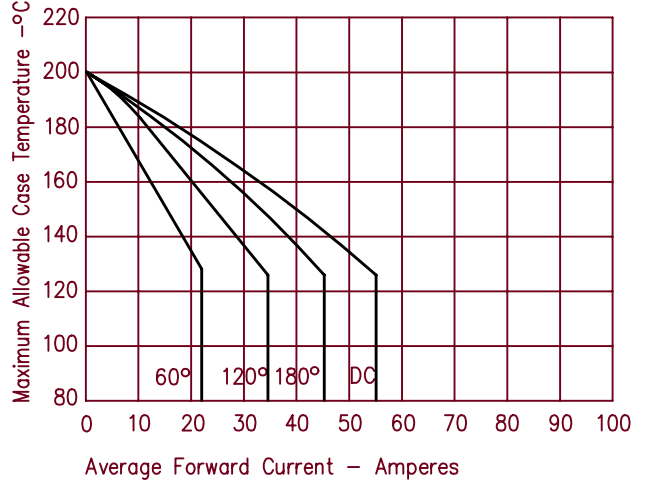


Figure 4  
Maximum Forward Power Dissipation

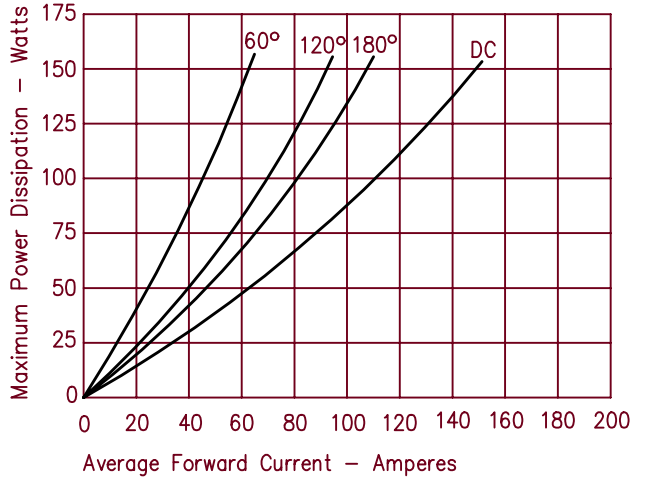
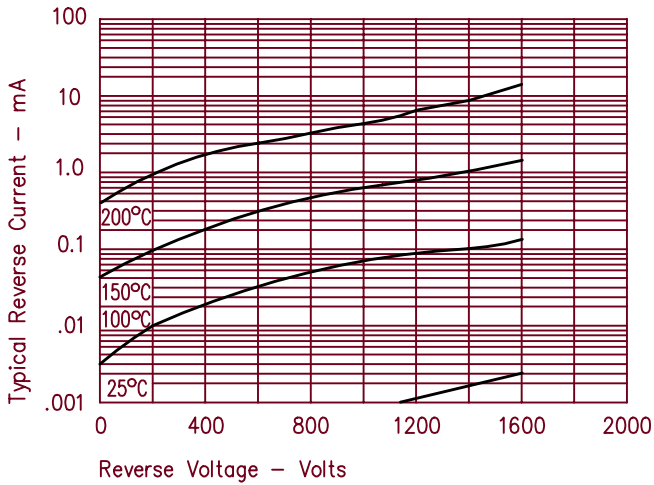


Figure 2  
Typical Reverse Characteristics



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Datasheets for electronics components.