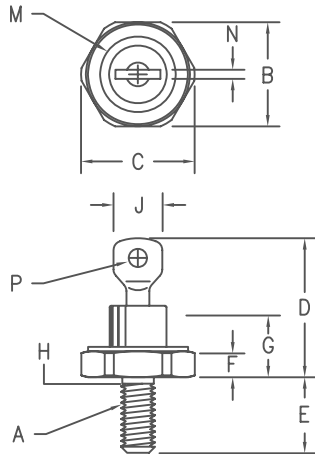


# Silicon Power Rectifier S/R25 Series



## Notes:

- 10-32 UNF3A
- Full threads within 2 1/2 threads
- 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   |

| Microsemi Catalog Number |         | Peak Reverse Voltage |
|--------------------------|---------|----------------------|
|                          | 1N1199C | 1N3615 50V           |
|                          | 1N1200C | 1N3616 100V          |
|                          | 1N1201C | 1N3617 150V          |
| *S2520                   | 1N1202C | 1N3618 200V          |
|                          | 1N1203C | 1N3619 300V          |
| *S2540                   | 1N1204C | 1N3620 400V          |
|                          | 1N1205C | 1N3621 500V          |
| *S2560                   | 1N1206C | 1N3622 600V          |
| *S2580                   |         | 1N3623 800V          |
| *S25100                  |         | 1N3624 1000V         |
| *S25120                  |         | 1200V                |
| *S25140                  |         | 1400V                |
| *S25160                  |         | 1600V                |

\*Change S to R in part number for Reverse Polarity  
For 1N types, add R suffix for Reverse Polarity

## DO203AA (DO4)

- Glass Passivated Die
- Low Forward Voltage
- 400A Surge Rating
- Glass to metal seal construction
- $V_{RRM}$  to 1600V
- Excellent reliability
- Low cost Non-RoHS package

## Electrical Characteristics

|                                     |                     |   |
|-------------------------------------|---------------------|---|
| Average forward current             | $I_F(AV)$ 25 Amps   | $T_C = 135^\circ C$ , half sine wave, $R_{\theta JC} = 2.0^\circ C/W$ |
| Maximum surge current               | $I_{FSM}$ 400 Amps  | 8.3ms, half sine, $T_J = 200^\circ C$                                 |
| Max $I^2 t$ for fusing              | $I^2 t$ 660 $A^2 s$ |   |
| Max peak forward voltage            | $V_{FM}$ 1.1 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    | $R_{\theta JC}$ | $2.0^\circ C/W$ Junction to Case |
| Mounting torque               |                 | 25-30 inch pounds                |
| Weight                        |                 | .16 ounces (5.0 grams) typical   |

# S/R25

Figure 1  
Maximum Forward Characteristics

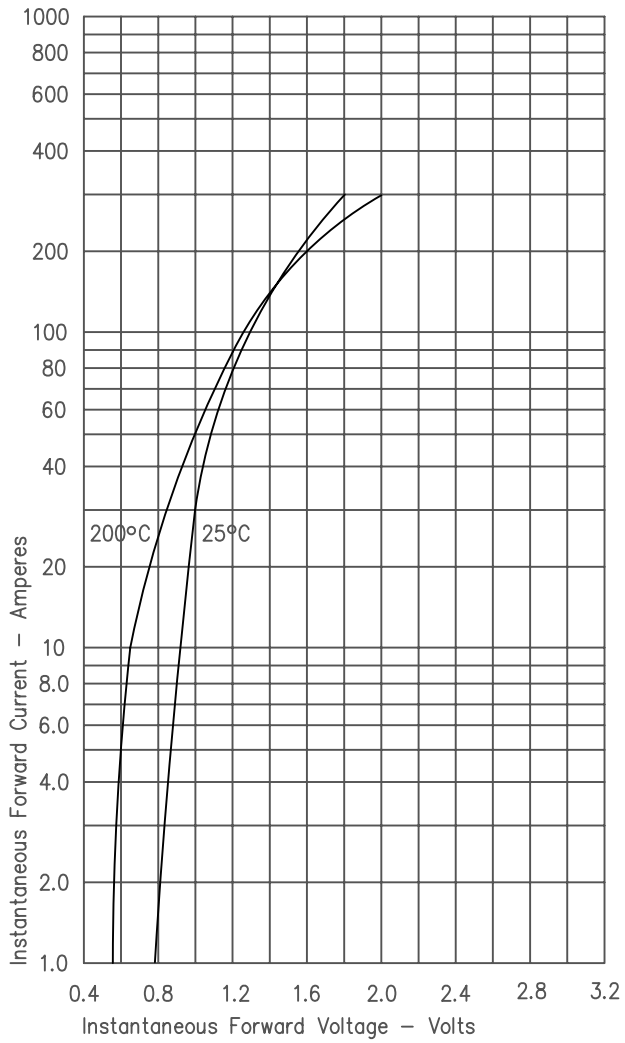


Figure 3  
Forward Current Derating

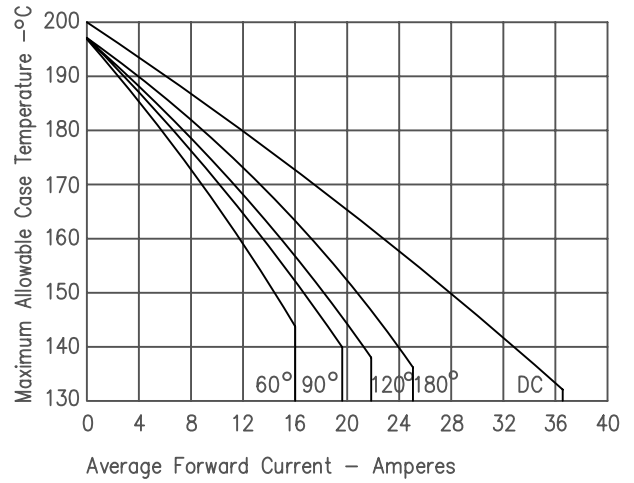


Figure 4  
Maximum Forward Power Dissipation

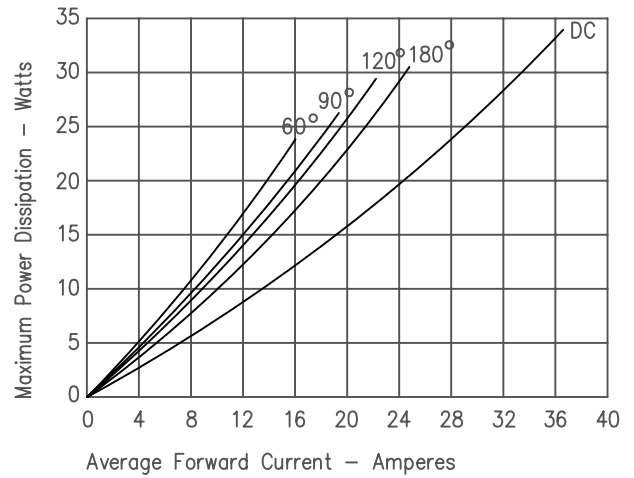


Figure 2  
Typical Reverse Characteristics

