

# ANTREX Electronics

Electronic Components Sourcing Information

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## Product Reference Information

**Part Number:** 1N2254

**Manufacturer:** Microchip Technology

**Package:** DO-203AA, DO-4, Stud

**Availability:** Please confirm with sales

### Product Page:

<https://antrexco.com/product/details/microchip-technology/1n2254.html>

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## Contact Information

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## Quality & Trust

New & Original Components

Supplier verification and packaging condition review

CoC / RoHS / REACH documents available on request

Secure sourcing support for OEM / EMS projects

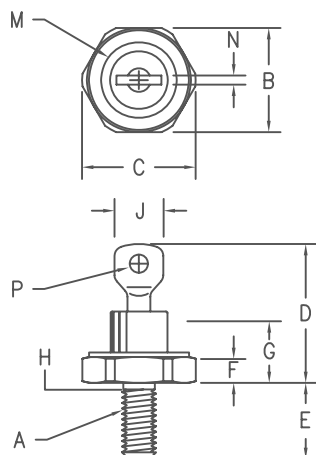
### Note:

This PDF includes an ANTREX product reference cover page.

The original manufacturer datasheet follows from the next page.

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# Silicon Power Rectifier S/R21 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 | JEDEC Numbers | Peak Reverse Voltage |
|--------------------------|---------------|----------------------|
| 1N2246,A                 | 1N2598        | 50V                  |
| 1N2248,A                 |               | 100V                 |
|                          |               | 150V                 |
| *S2120                   | 1N2250,A      | 200V                 |
|                          | 1N2252,A      | 300V                 |
| *S2140                   | 1N2254,A      | 400V                 |
|                          | 1N2256,A      | 500V                 |
| *S2160                   | 1N2258,A      | 600V                 |
|                          |               | 700V                 |
| *S2180                   | 1N2260,A      | 800V                 |
|                          | 1N3670,A      | 900V                 |
|                          | 1N3671,A      | 1000V                |
| *S21100                  | 1N2262,A      | 1200V                |
| *S21120                  | 1N2264,A      | 1400V                |
| *S21140                  |               | 1600V                |
| *S21160                  | 1N5331        | 1600V                |

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

- Glass Passivated Die
- Low Forward Voltage
- 250A Surge Rating
- Glass to metal seal construction
- $V_{RRM}$  to 1600V
- Low cost Non-RoHS package

## Electrical Characteristics

|                                     |                             |                                                                                       |
|-------------------------------------|-----------------------------|---------------------------------------------------------------------------------------|
| Average forward current             | IF(AV) 22 Amps              | $T_C = 134^{\circ}\text{C}$ , half sine wave, $R_{\theta JC} = 2.5^{\circ}\text{C/W}$ |
| Maximum surge current               | IFSM 250 Amps               | 8.3ms, half sine, $T_J = 200^{\circ}\text{C}$                                         |
| Max $I^2t$ for fusing               | $I^2t$ 260 A <sup>2</sup> s |                                                                                       |
| Max peak forward voltage            | $V_{FM}$ 1.2 Volts          | $I_{FM} = 30\text{A}; T_J = 25^{\circ}\text{C}$                                       |
| Max peak reverse current            | IRM 10 $\mu\text{A}$        | $V_{RRM}, T_J = 25^{\circ}\text{C}$                                                   |
| Max peak reverse current            | IRM 1.0 mA                  | $V_{RRM}, T_J = 150^{\circ}\text{C}$                                                  |
| Max Recommended Operating Frequency | 10kHz                       |                                                                                       |

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

## Thermal and Mechanical Characteristics

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

# S/R21

Figure 1  
Maximum Forward Characteristics

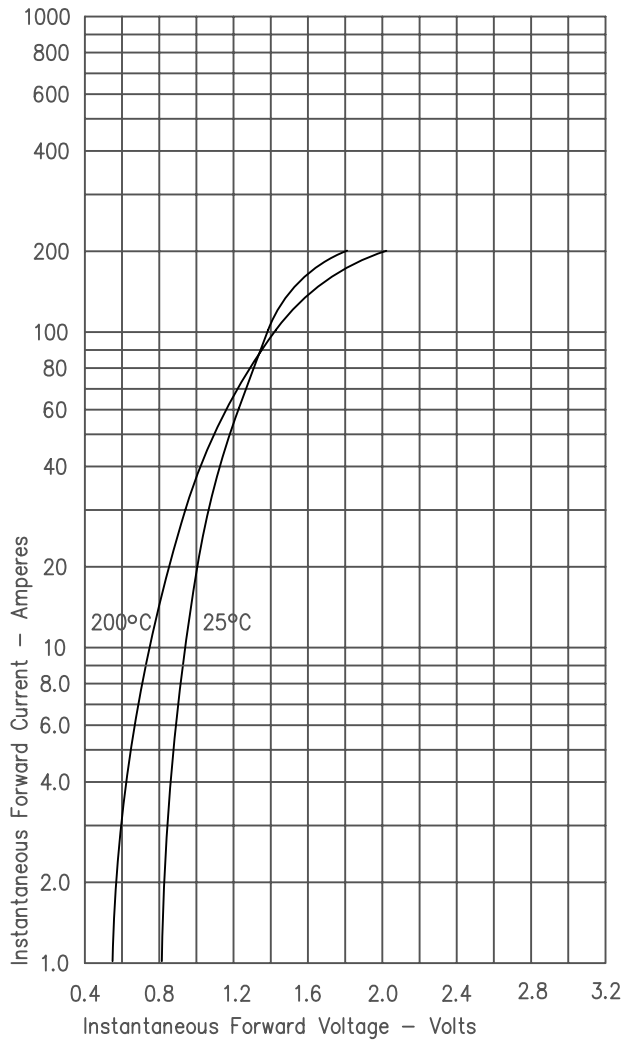


Figure 2  
Typical Reverse Characteristics

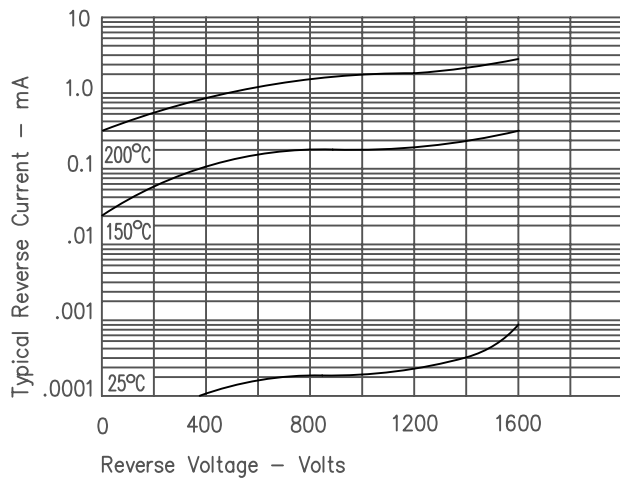


Figure 3  
Forward Current Derating

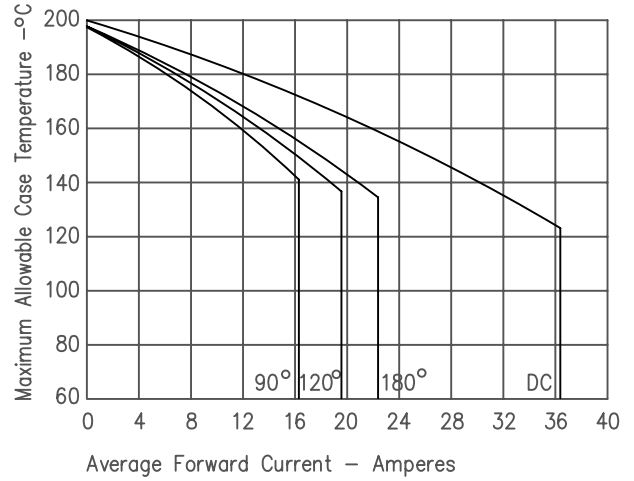


Figure 4  
Maximum Forward Power Dissipation

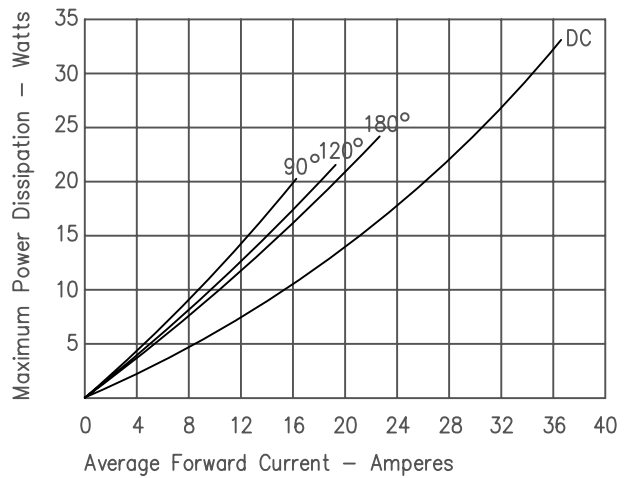


Figure 5  
Transient Thermal Impedance

