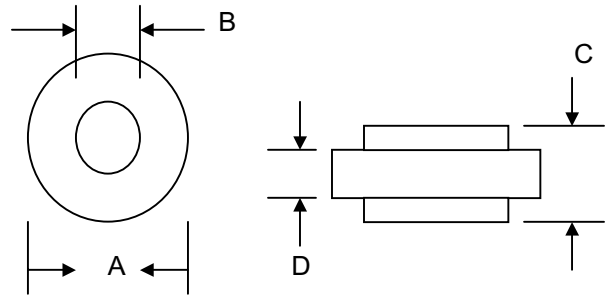


Data Sheet 2500 Rev.—

Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Low Cost Construction Utilizing Void-Free Molded Plastic Technique



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Terminals Solderable per MIL-STD-202, Method 208
- Polarity: Color Ring Denotes Cathode End
- Weight: 1.8 grams (approx.)
- Mounting Position: Any
- Marking: Color Band

| Dim | AR | | ARS | |
|-----|-------------|-------------|-------------|-------------|
| | Min | Max | Min | Max |
| A | 0.382(9.70) | 0.409(10.4) | 0.327(8.30) | 0.350(8.90) |
| B | 0.217(5.50) | 0.224(5.70) | 0.217(5.50) | 0.224(5.70) |
| C | 0.236(6.00) | 0.252(6.40) | 0.236(6.00) | 0.252(6.40) |
| D | 0.165(4.20) | 0.185(4.70) | 0.165(4.20) | 0.185(4.70) |

S Suffix Designates ARS Package
No Suffix Designates AR Package

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | AR/S 25A | AR/S 25B | AR/S 25D | AR/S 25G | AR/S 25J | AR/S 25K | AR/S 25M | Unit |
|---|-----------------------------------|-------------|----------|----------|----------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Working Peak Reverse Voltage | V _{VRWM} | | | | | | | | |
| DC Blocking Voltage | V _R | | | | | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @T _C = 150°C | I _O | 25 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) at T _J = 150°C | I _{FSM} | 400 | | | | | | | A |
| Forward Voltage @I _F = 25A | V _{FM} | 1.0 | | | | | | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C | I _{RM} | 5.0 250 | | | | | | | μA |
| Reverse Recovery Time (Note 1) | t _{rr} | 3.0 | | | | | | | μS |
| Typical Junction Capacitance (Note 2) | C _j | 300 | | | | | | | pF |
| Typical Thermal Resistance Junction to Case (Note 3) | R _{θJC} | 1.0 | | | | | | | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -50 to +175 | | | | | | | °C |
| Polarity and Voltage Denotation Color Band | | Red | Yellow | Silver | Orange | Green | Blue | Violet | |

***Glass passivated forms are available upon request**

- Note: 1. Measured with I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Thermal Resistance: Junction to case, single side cooled.

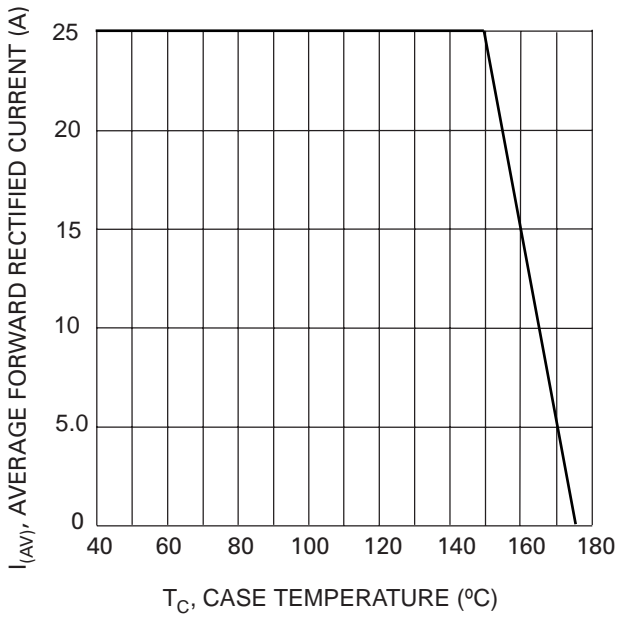


Fig. 1 Forward Current Derating Curve

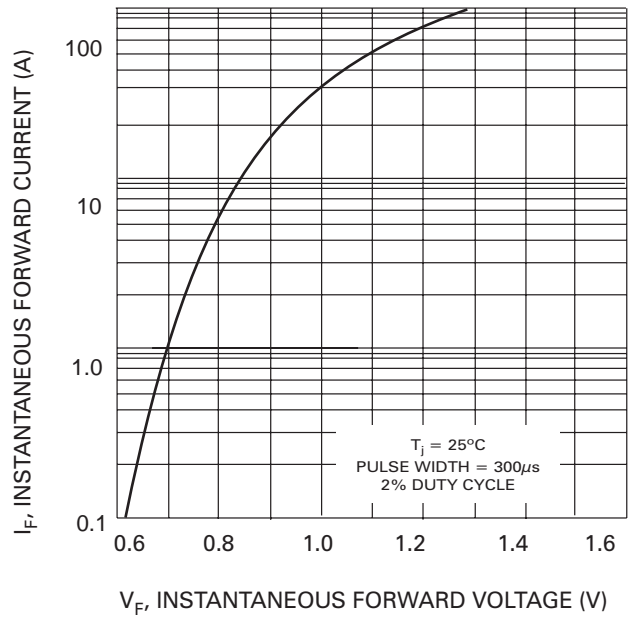


Fig. 2 Typical Forward Characteristics

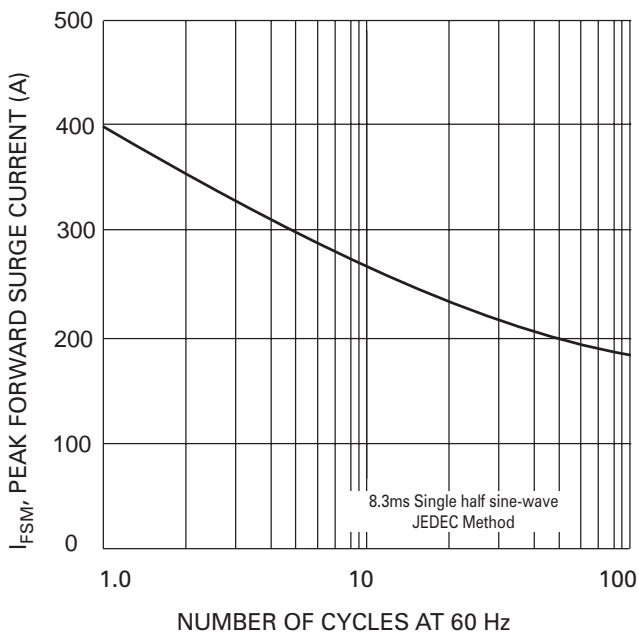


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

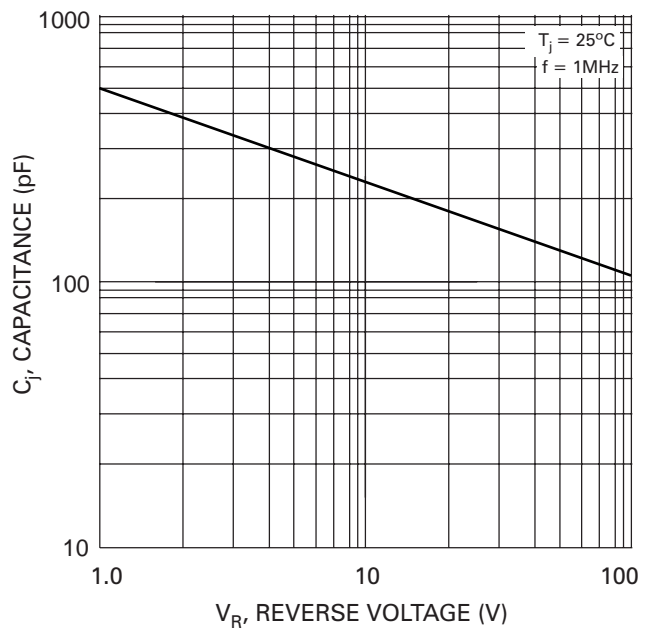


Fig. 4 Typical Junction Capacitance