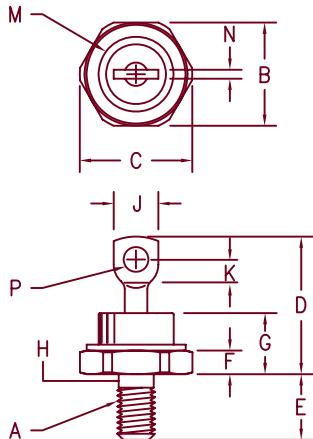


40 Amp Schottky Rectifier

1N5832 - 1N5834



Notes:

1. Full threads within 2 1/2 threads
2. Stud is Cathode.

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | --- | --- | --- | --- | 1,2 |
| B | .669 | .687 | 16.99 | 17.45 | |
| C | --- | .794 | --- | 20.17 | |
| D | --- | 1.00 | --- | 25.40 | |
| E | .422 | .453 | 10.72 | 11.51 | |
| 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 | --- | 3.96 | --- | |
| M | --- | .515 | --- | 13.08 | Dia |
| N | --- | .080 | --- | 2.03 | |
| P | .140 | .175 | 3.56 | 4.44 | Dia |

DO-213AB (DO-5)

| Microsemi Catalog Number | Working Reverse Voltage | Peak Reverse Voltage | Repetitive Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|-------------------------|----------------------|---------------------------------|---------------------------------|
| 1N5832 | 20V | 20V | 24V | |
| 1N5833 | 30V | 30V | 36V | |
| 1N5834 | 40V | 40V | 48V | |

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 40 Amperes
- 125°C Junction Temperature
- V_{RRM} 20 to 40 Volts

Electrical Characteristics

| | 1N5832 | 1N5833 | 1N5834 | |
|------------------------------|------------|--------|--------|--|
| Average forward current | $I_{F(A)}$ | 40A | 40A | 40A |
| Maximum surge current | I_{FSM} | 800A | 800A | 800A |
| Max peak forward voltage | V_{FM} | .360V | .370V | .380V |
| Max peak forward voltage | V_{FM} | .520V | .550V | .590V |
| Max peak forward voltage | V_{FM} | .980V | 1.080V | 1.180V |
| Max peak reverse current | I_{RM} | 150mA | 150mA | 150mA |
| Max peak reverse current | I_{RM} | 20mA | 20mA | 20mA |
| Typical junction capacitance | C_J | 2200pF | 2200pF | 2200pF |
| | | | | $T_C = 100^\circ\text{C}$, half sine wave, $R_{\theta JC} = 1.0^\circ\text{C}/\text{W}$ |
| | | | | 8.3ms, half sine, $T_J = 125^\circ\text{C}$ |
| | | | | $ FM = 10\text{A}, TJ = 25^\circ\text{C}^*$ |
| | | | | $ FM = 40\text{A}, TJ = 25^\circ\text{C}^*$ |
| | | | | $ FM = 125\text{A}, TJ = 25^\circ\text{C}^*$ |
| | | | | $V_{RRM}, TJ = 100^\circ\text{C}$ |
| | | | | $V_{RRM}, TJ = 25^\circ\text{C}^*$ |
| | | | | $T_J = 25^\circ\text{C}, VR = 5\text{V}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|-----------------|---|
| Storage temp range | T_{STG} | -65°C to 175°C |
| Operating junction temp range | T_J | -65°C to 125°C |
| Max thermal resistance | $R_{\theta JC}$ | $1.0^\circ\text{C}/\text{W}$ junction to Case |
| Max mounting torque | | 30 inch pounds maximum |
| Typical Weight | | .54 ounces (15.3 grams) typical |

1N5832 - 1N5834

Figure 1
Typical Forward Characteristics

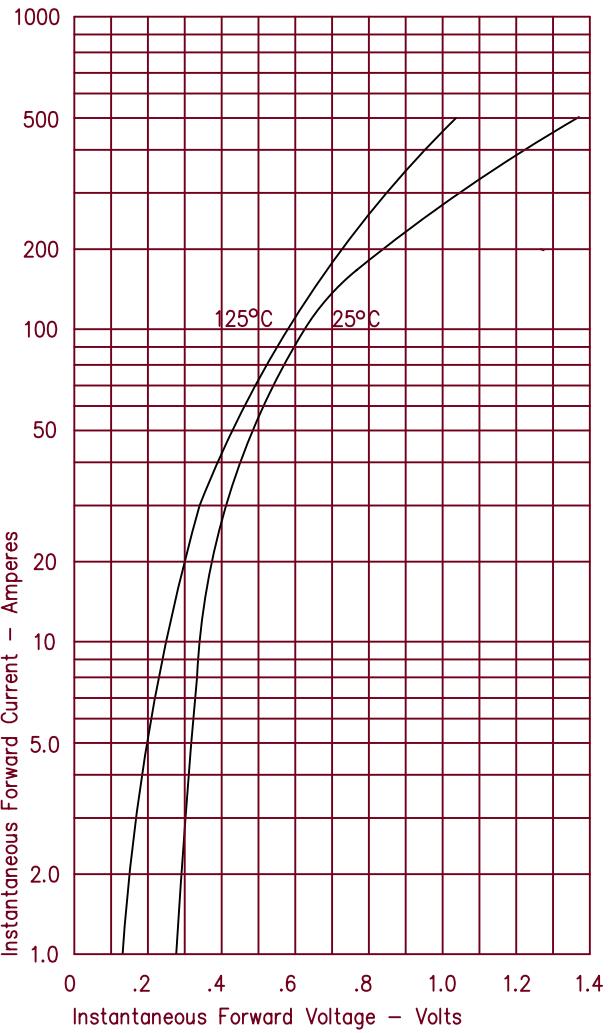


Figure 2
Typical Reverse Characteristics

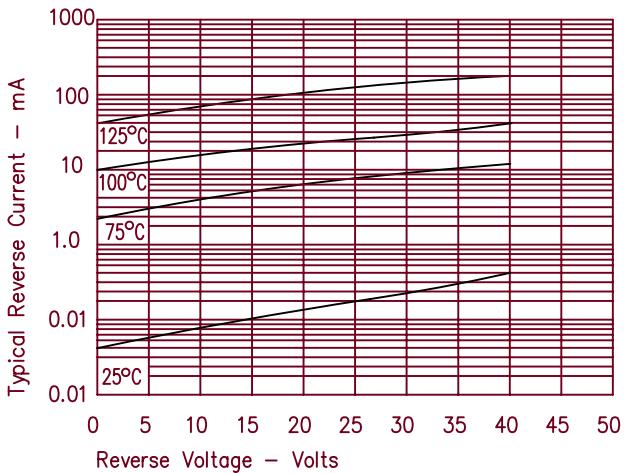


Figure 3
Typical Junction Capacitance

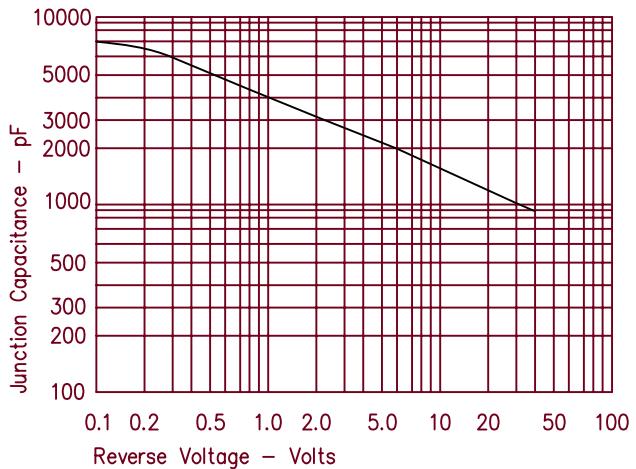


Figure 4
Forward Current Derating

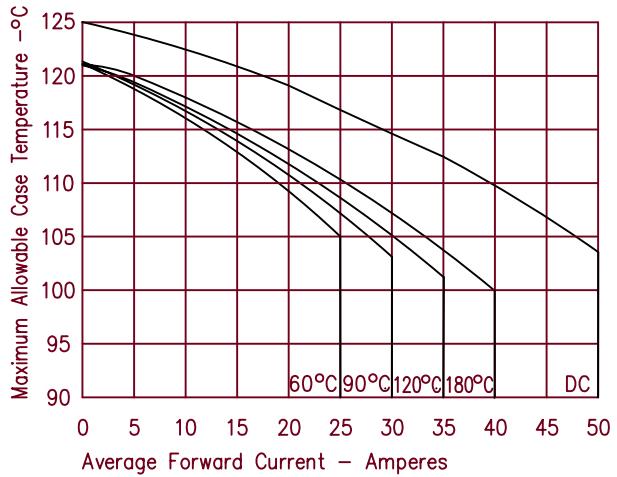


Figure 5
Maximum Forward Power Dissipation

