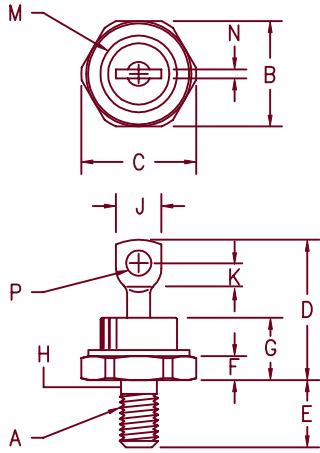


Military Silicon Power Rectifier

1N1184–1N1190, 1N3766–1N3768



Notes:

- 1/4–28 UNF–3A
- 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 | .667 | .687 | 16.95 | 17.44 | |
| C | --- | .793 | --- | 20.14 | |
| D | --- | 1.00 | --- | 25.40 | |
| E | .422 | .453 | 10.72 | 11.50 | |
| F | .115 | .200 | 2.93 | 5.08 | |
| G | --- | .450 | --- | 11.43 | |
| H | .220 | .249 | 5.59 | 6.32 | 2 |
| J | .250 | .375 | 6.35 | 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 | Reverse | Peak Reverse Voltage |
|--------------------------|---------|----------------------|
| Standard | Reverse | |
| 1N1184 | 1N1184R | 100V |
| 1N1186 | 1N1186R | 200V |
| 1N1188 | 1N1188R | 400V |
| 1N1190 | 1N1190R | 600V |
| 1N3766 | 1N3766R | 800V |
| 1N3768 | 1N3768R | 1000V |

- Available in JAN, JANTX, JANTXV
- MIL-PRF-19500/297
- Glass Passivated Die
- Glass to metal seal construction
- 500 Amps surge rating
- V_{RRM} to 1000V

Electrical Characteristics

| | | |
|-------------------------------------|---------------------|---|
| Average forward current | $I_F(AV)$ 35 Amps | $T_C = 150^\circ C$, half sine wave, $R_{\theta JC} = 0.8^\circ C/W$ |
| Maximum surge current | I_{FSM} 500 Amps | 8.3ms, half sine, $T_J = 150^\circ C$ |
| Max I^2t for fusing | I^2t 1100 A^2s | |
| Max peak forward voltage | V_{FM} 1.40 Volts | $I_{FM} = 110A: 25^\circ C^*$ |
| Max peak forward voltage | V_{FM} 2.3 Volts | $I_{FM} = 500A: 25^\circ C$ |
| Max peak reverse current | I_{RM} 10 μA | $V_{RRM}, T_J = 25^\circ C$ |
| Max peak reverse current | I_{RM} 1.0 mA | $V_{RRM}, T_J = 150^\circ C^*$ |
| Max Recommended Operating Frequency | 10 kHz | |

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

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|-----------------|----------------------------------|
| Storage temp range | T_{STG} | $-65^\circ C$ to $175^\circ C$ |
| Operating junction temp range | T_J | $-65^\circ C$ to $175^\circ C$ |
| Max thermal resistance | $R_{\theta JC}$ | $0.8^\circ C/W$ Junction to Case |
| Max mounting torque | | 30 inch pounds maximum |
| Typical Weight | | .5 ounces (14 grams) typical |

MILITARY

1N1184-1N1190, 1N3766-1N3768

Figure 1
Typical Forward Characteristics

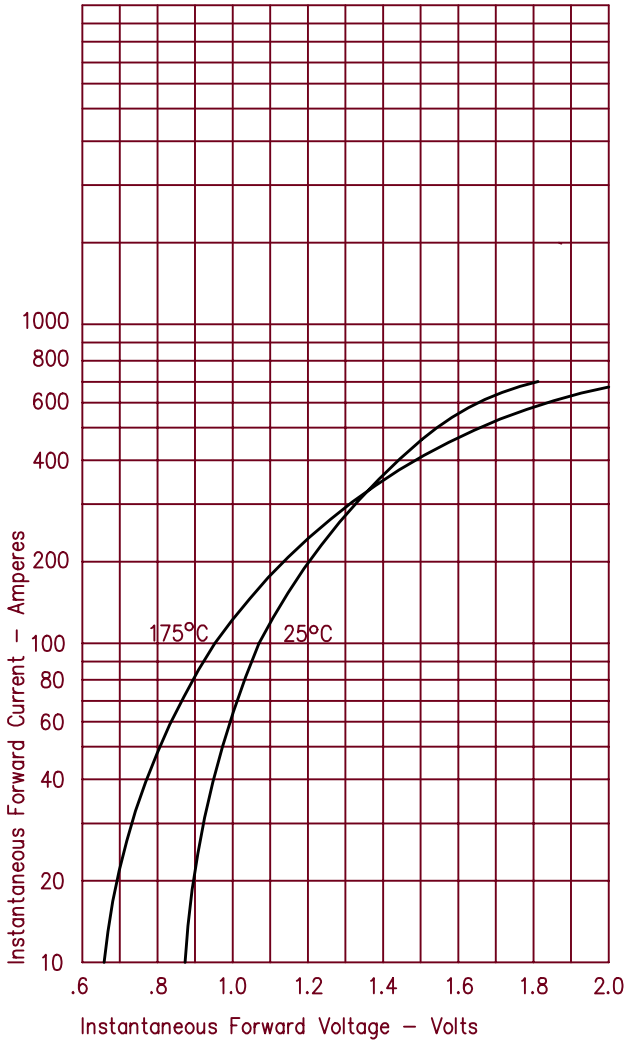


Figure 3
Forward Current Derating

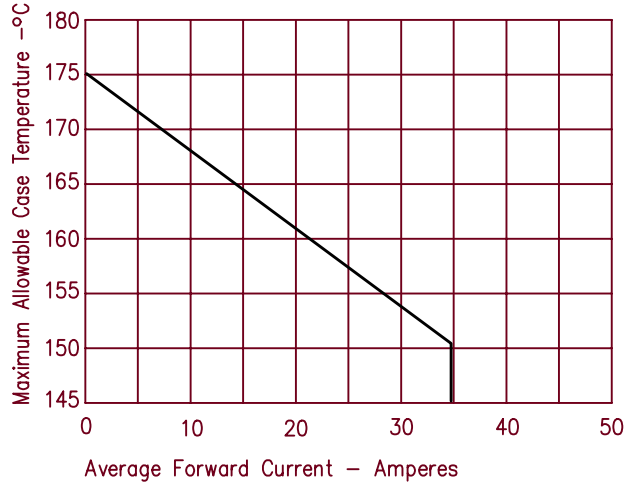


Figure 4
Transient Thermal Impedance

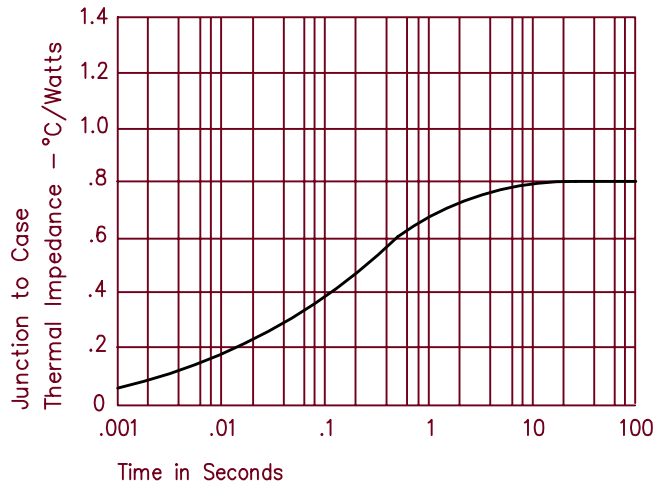


Figure 2
Typical Reverse Characteristics

