



Micro Commercial Components
21201 Itasca Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

1N5812 thru 1N5816

Features

- Full threads within 2 1/2 threads
- Standard Polarity : Stud is Cathode

20 Amp Ultra Fast Recovery Rectifier 50 to 150 Volts

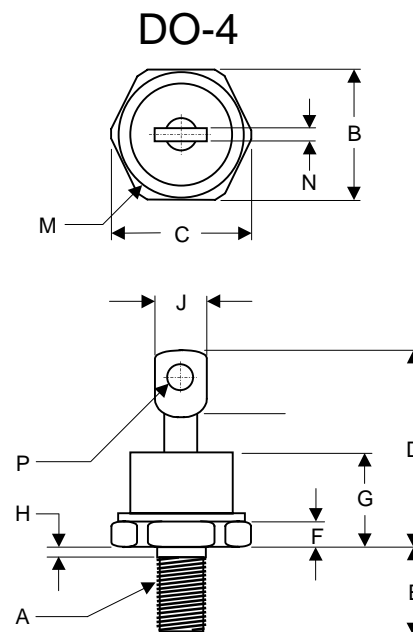
Maximum Ratings

- Operating Junction Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| 1N5812 | 50V | 35V | 50V |
| 1N5813 | 75V | 52.5V | 75V |
| 1N5814 | 100V | 70V | 100V |
| 1N5815 | 125V | 87.5V | 125V |
| 1N5816 | 150V | 105V | 150V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--------------|---|
| Average Forward Current | $I_{F(AV)}$ | 20 A | $T_C = 100^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 400A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .89V .97V | $I_{FM} = 10A ; T_j = 25^\circ\text{C}$ $I_{FM} = 20 A ; T_j = 25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 10uA 1mA | $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$ |
| Maximum Reverse Recovery Time | T_{rr} | 45nS | $I_F = I_R = 1.0A$ dc $I_{(REC)} = 0.1A$ $di/dt = 85 A / \mu S$ |



| DIMENSIONS | | | | | |
|------------|-------------|------|---------|-------|----------|
| DIM | INCH ES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 10-32 UNF3A | | Threads | | Polarity |
| 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 | |
| J | ---- | .310 | ---- | 7.87 | |
| M | ---- | .350 | ---- | 8.89 | Ø |
| N | .020 | .065 | 0.51 | 1.65 | |
| P | .060 | .100 | 1.53 | 2.54 | Ø |

*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

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Figure 1
Typical Forward Characteristics

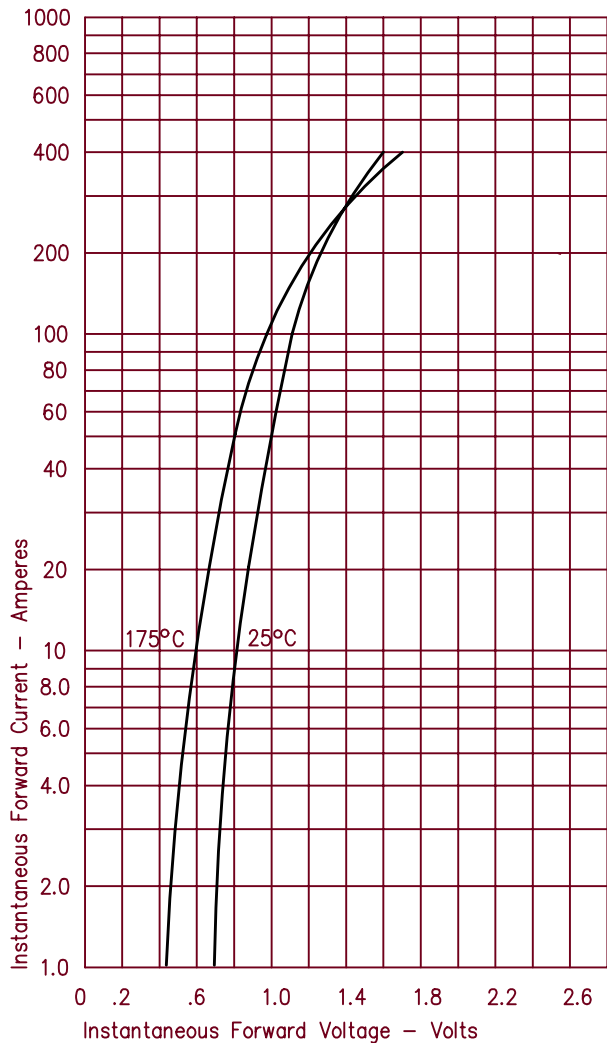


Figure 3
Typical Junction Capacitance

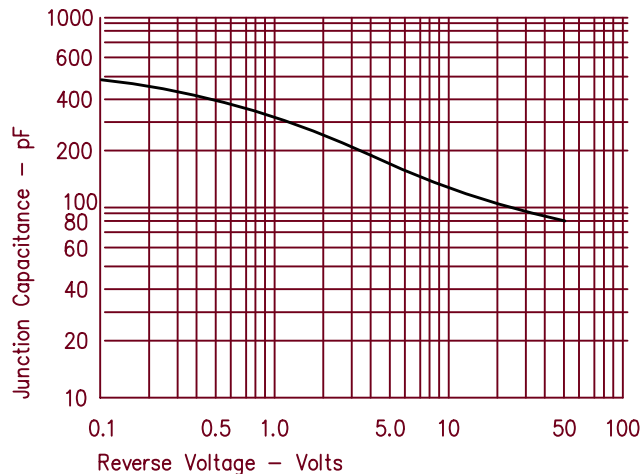


Figure 4
Forward Current Derating

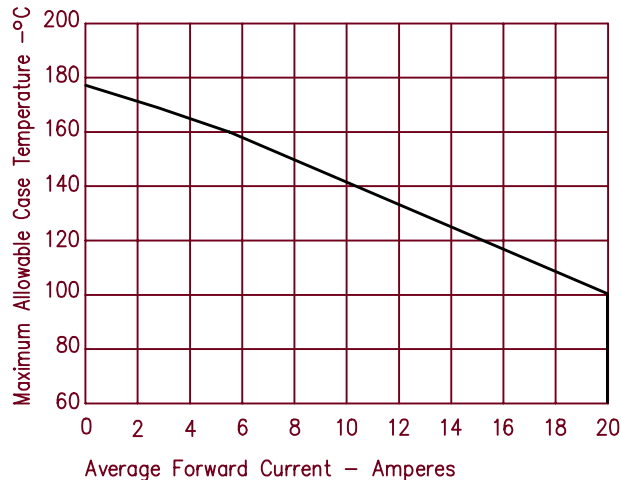
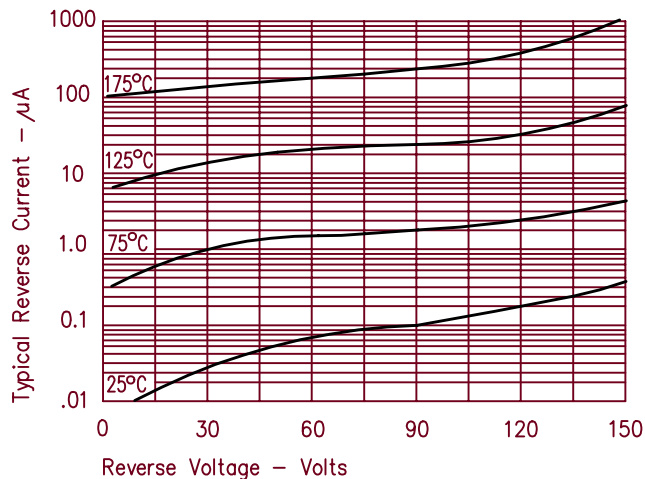


Figure 2
Typical Reverse Characteristics



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