

# Spice Model

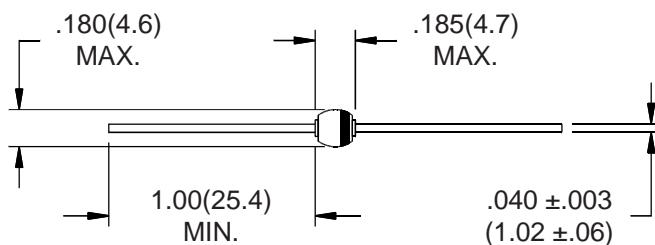


Z10FF3



## Electrical Characteristics and Maximum Ratings

| Part Number | Working Reverse Voltage (V <sub>rwm</sub> ) | Average Rectified Current (I <sub>o</sub> ) |          | Reverse Current @ V <sub>rwm</sub> (I <sub>r</sub> ) |       | Forward Voltage (V <sub>f</sub> ) |      | 1 Cycle Surge Current tp=8.3ms (I <sub>fsm</sub> ) | Repetitive Surge Current (I <sub>frm</sub> ) | Reverse Recovery Time (3) (T <sub>rr</sub> ) | Thermal Impedance θ <sub>J-L</sub> |      | Junction Cap. @ 50VDC @ 1kHz (C <sub>j</sub> ) |   |
|-------------|---|---|----------|--|-------|-----------------------------------|------|--|--|--|------------------------------------|------|--|---|
|             |   | 55°C(1)                                     | 100°C(2) | 25°C   | 100°C | 25°C                              |      | 25°C   | 25°C   | ns   | °C/W                               | °C/W | °C/W   |   |
|             | Volts                                       | Amps  | Amps     | μA   | μA    | Volts                             | Amps | Amps   | Amps   | ns   | °C/W                               | °C/W | pF   |   |
| Z10FF3      | 1000  | 1.20  | 0.80     | 1.0  | 50    | 4.0                               | 1.5  | 50   | 10.0   | 30   | 9                                  | 20   | 25   | 8 |



| Name            | Parameter                      | Value   | Units |
|-----------------|--------------------------------|---------|-------|
| I <sub>s</sub>  | Reverse leakage current        | 5.0E-07 | Amps  |
| N               | Emission coefficient           | 7.6     |       |
| T               | Temperature                    | 25      | C     |
| RS              | Diode series resistance        | 0.5     | Ohm   |
| TT              | Transit time                   | 30      | nS    |
| C <sub>jo</sub> | Zero-bias junction capacitance | 74.77   | pF    |
| VJ              | Bulk junction potential        | 1.53    | Volts |
| M               | Grading coefficient            | 0.5     |       |
| EG              | Energy-band gap                | 1.11    | Volts |
| XTI             | Temperature coefficient        | 3       |       |
| KF              | Flicker-noise coefficient      | 0       |       |
| AF              | Flicker-noise exponent         | 1       |       |
| FC              | Coefficient for capacitance    | 0.5     |       |
| BV              | Diode breakdown voltage        | 1500    | Volts |
| IBV             | Diode breakdown current        | 100     | uAmps |

Dimensions: In. (mm) \* All temperatures are ambient unless otherwise noted. \* Data subject to change without notice.



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