

# ER1000F – ER1006F

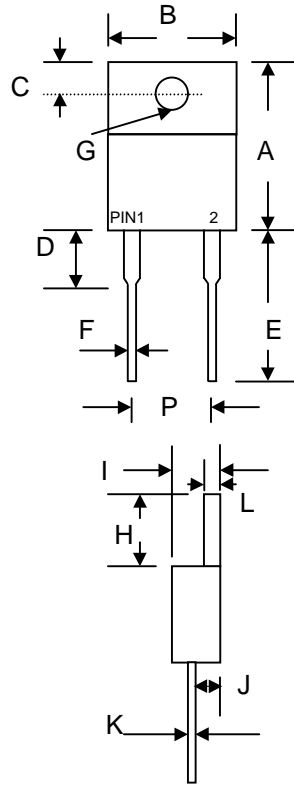
## 10A ISOLATION SUPER-FAST GLASS PASSIVATED RECTIFIER

### Features

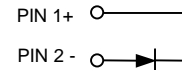
- Glass Passivated Die Construction
- Super-Fast Switching for High Efficiency
- High Current Capability
- Low Reverse Leakage Current
- High Surge Current Capability
- Plastic Material has UL Flammability Classification 94V-O

### Mechanical Data

- Case: ITO-220A Full Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| ITO-220A             |        |        |
|----------------------|--------|--------|
| Dim                  | Min    | Max    |
| A                    | 14.9   | 15.1   |
| B                    | —      | 10.5   |
| C                    | 2.62   | 2.87   |
| D                    | 3.56   | 4.06   |
| E                    | 13.46  | 14.22  |
| F                    | 0.68   | 0.94   |
| G                    | 3.74 Ø | 3.91 Ø |
| H                    | 5.84   | 6.86   |
| I                    | 4.44   | 4.70   |
| J                    | 2.54   | 2.79   |
| K                    | 0.35   | 0.64   |
| L                    | 1.14   | 1.40   |
| P                    | 4.95   | 5.20   |
| All Dimensions in mm |        |        |



### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

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

| Characteristic  | Symbol                            | ER 1000F    | ER 1001F | ER 1001AF | ER 1002F | ER 1003F | ER 1004F | ER 1006F | Unit |
|---|-----------------------------------|-------------|----------|-----------|----------|----------|----------|----------|------|
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                  | 50          | 100      | 150       | 200      | 300      | 400      | 600      | V    |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>                  |             |          |           |          |          |          |          |      |
| DC Blocking Voltage   | V <sub>R</sub>                    |             |          |           |          |          |          |          |      |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>               | 35          | 70       | 105       | 140      | 210      | 280      | 420      | V    |
| Average Rectified Output Current @T <sub>C</sub> = 105°C  | I <sub>O</sub>                    | 10          |          |           |          |          |          |          | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I <sub>FSM</sub>                  | 150         |          |           |          |          |          |          | A    |
| Forward Voltage @I <sub>F</sub> = 10A   | V <sub>FM</sub>                   | 0.95        |          |           | 1.3      |          | 1.7      |          | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C   | I <sub>RM</sub>                   | 10          |          |           |          |          |          |          | µA   |
| At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C  |                                   | 500         |          |           |          |          |          |          |      |
| Reverse Recovery Time (Note 1)  | t <sub>rr</sub>                   | 35          |          |           | 50       |          |          |          | nS   |
| Typical Junction Capacitance (Note 2)   | C <sub>j</sub>                    | 70          |          |           | 50       |          |          |          | pF   |
| Operating and Storage Temperature Range   | T <sub>i</sub> , T <sub>STG</sub> | -65 to +150 |          |           |          |          |          |          | °C   |

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>RR</sub> = 0.25A.  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

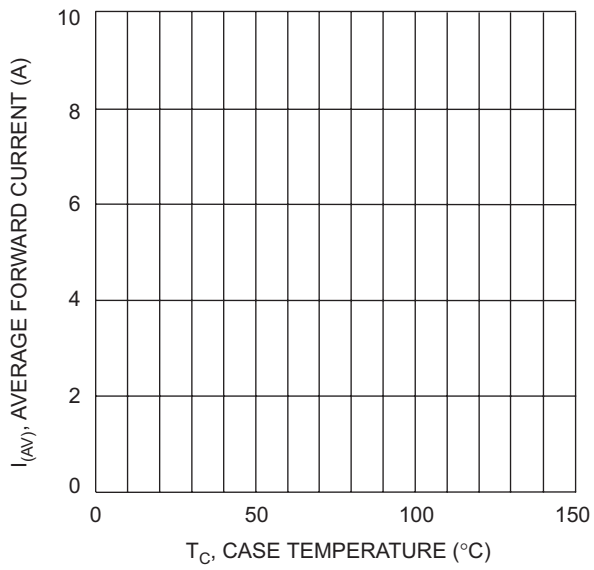


Fig. 1 Forward Current Derating Curve

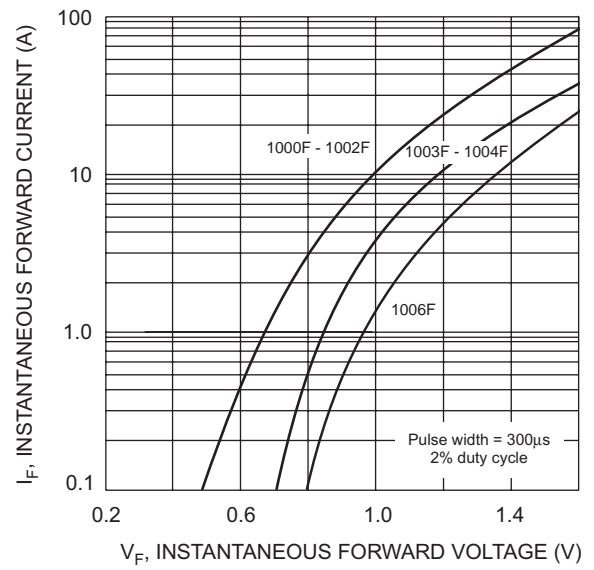


Fig. 2 Typical Forward Characteristics

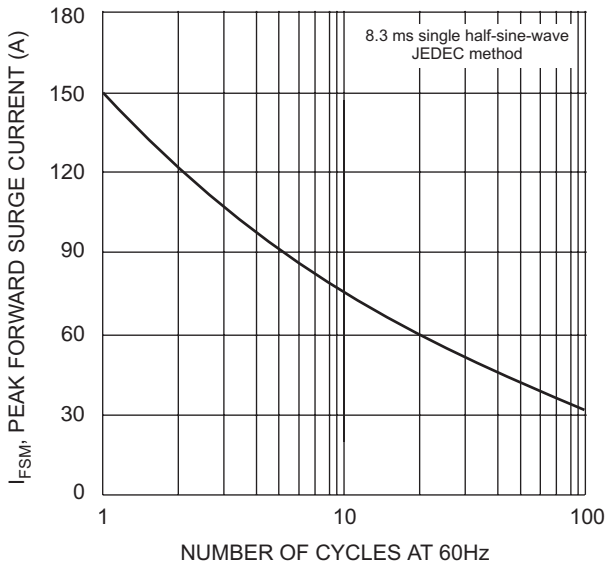


Fig. 3 Max Non-Repetitive Surge Current

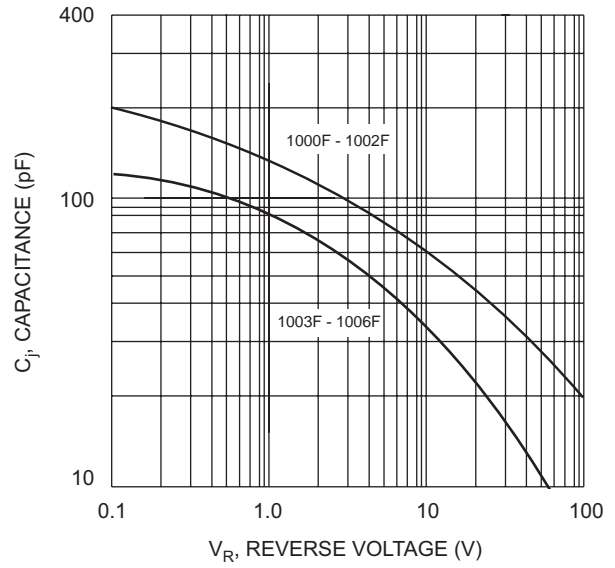


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| ER1000F     | ITO-220A     | 50 Units/Tube     |
| ER1001F     | ITO-220A     | 50 Units/Tube     |
| ER1001AF    | ITO-220A     | 50 Units/Tube     |
| ER1002F     | ITO-220A     | 50 Units/Tube     |
| ER1003F     | ITO-220A     | 50 Units/Tube     |
| ER1004F     | ITO-220A     | 50 Units/Tube     |
| ER1006F     | ITO-220A     | 50 Units/Tube     |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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