

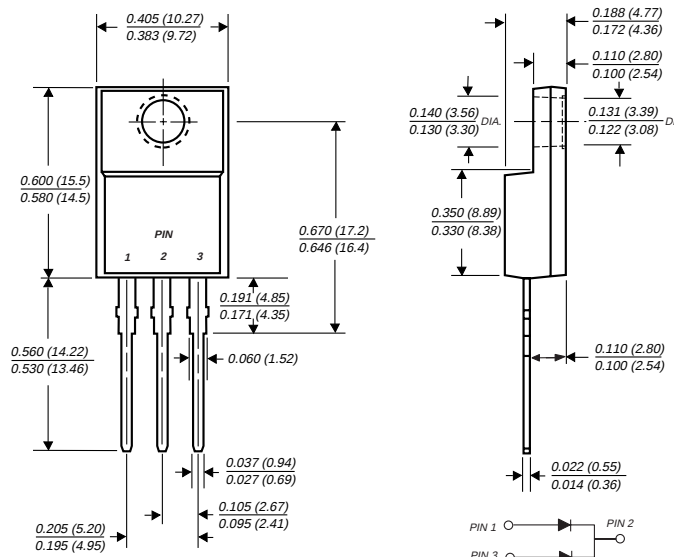
# FEPF16AT THRU FEPF16JT

## FAST EFFICIENT PLASTIC RECTIFIER

**Reverse Voltage - 50 to 600 Volts**

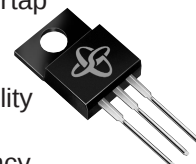
**Forward Current - 16.0 Amperes**

### ITO-220AB



### FEATURES

- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ Dual rectifier construction, positive centertap
- ♦ Glass passivated chip junctions
- ♦ Low power loss
- ♦ Low forward voltage, high current capability
- ♦ High surge current capability
- ♦ Superfast recovery times for high efficiency
- ♦ High temperature soldering guaranteed:  
250°C, 0.25" (6.35mm) from case for 10 seconds



### MECHANICAL DATA

**Case:** JEDEC ITO-220AB molded plastic body

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.08 ounce, 2.24 grams

**Mounting Torque:** 5 in. - lbs. max.

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

|                                                                                                                                 | SYMBOLS                           | FEPF<br>16AT  | FEPF<br>16BT | FEPF<br>16CT | FEPF<br>16DT | FEPF<br>16FT | FEPF<br>16GT | FEPF<br>16HT | FEPF<br>16JT | UNITS |
|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| Maximum repetitive peak reverse voltage                                                                                         | V <sub>RRM</sub>                  | 50            | 100          | 150          | 200          | 300          | 400          | 500          | 600          | Volts |
| Maximum RMS voltage                                                                                                             | V <sub>RMS</sub>                  | 35            | 70           | 105          | 140          | 210          | 280          | 350          | 420          | Volts |
| Maximum DC blocking voltage                                                                                                     | V <sub>DC</sub>                   | 50            | 100          | 150          | 200          | 300          | 400          | 500          | 600          | Volts |
| Maximum average forward rectified current<br>at T <sub>C</sub> =100°C                                                           | I <sub>(AV)</sub>                 | 16.0          |              |              |              |              |              |              |              | Amps  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) at T <sub>C</sub> =100°C | I <sub>FSM</sub>                  | 200.0         |              |              |              |              |              |              |              | Amps  |
| Maximum instantaneous forward voltage per leg<br>at 8.0A                                                                        | V <sub>F</sub>                    | 0.95          |              | 1.3          |              | 1.5          |              |              |              | Volts |
| Maximum DC reverse current<br>at rated DC blocking voltage per leg<br>T <sub>C</sub> =25°C<br>T <sub>C</sub> =100°C             | I <sub>R</sub>                    | 10.0<br>500.0 |              |              |              |              |              |              |              | μA    |
| Maximum reverse recovery time (NOTE 1)<br>per leg                                                                               | t <sub>rr</sub>                   | 35.0          |              | 50.0         |              |              |              |              |              | ns    |
| Typical junction capacitance per leg (NOTE 2)                                                                                   | C <sub>J</sub>                    | 85.0          |              |              |              | 60.0         |              |              |              | pF    |
| Typical thermal resistance (NOTE 3)                                                                                             | R <sub>θJC</sub>                  | 5.0           |              |              |              |              |              |              |              | °C/W  |
| Operating junction and storage temperature range                                                                                | T <sub>J</sub> , T <sub>STG</sub> | -55 to +150   |              |              |              | °C           |              |              |              |       |

### NOTES:

(1) Reverse recovery test conditions: 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 4.0 Volts

(3) Thermal resistance from junction to case per leg mounted on heatsink

# RATINGS AND CHARACTERISTICS CURVES FEPF16AT THRU FEPF16JT

FIG. 1 - FORWARD CURRENT DERATING CURVE

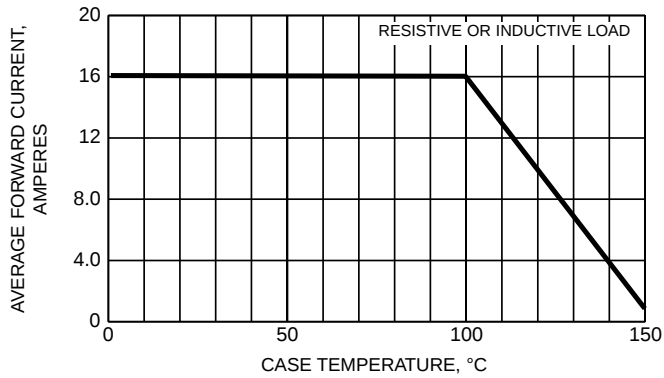


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

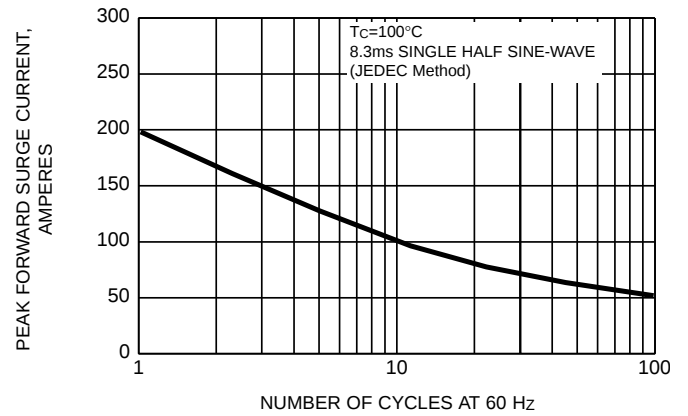


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

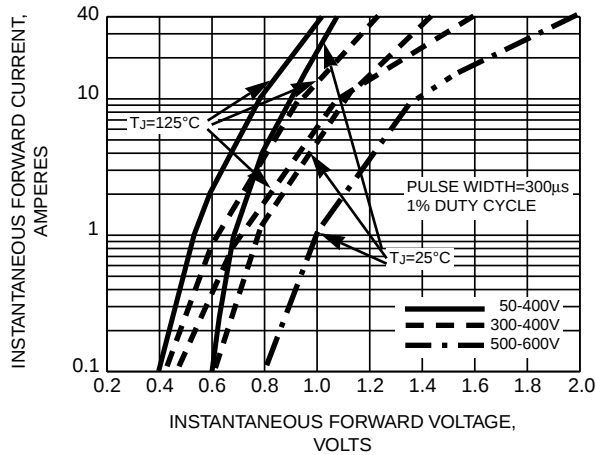


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

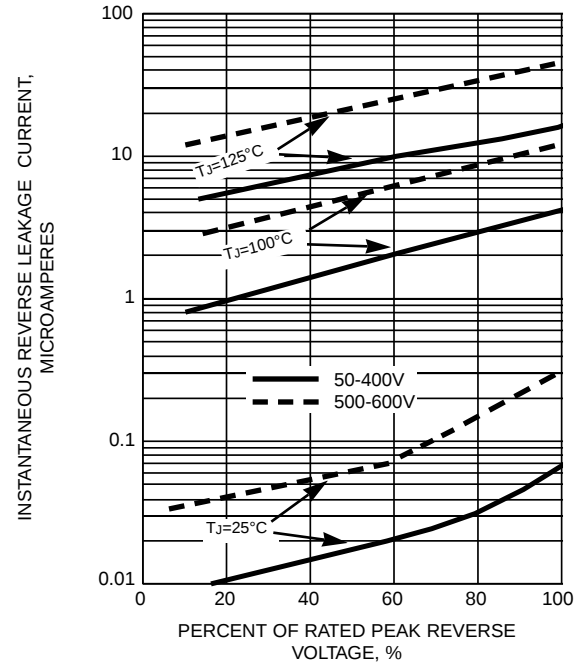


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

