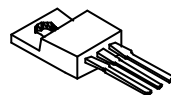
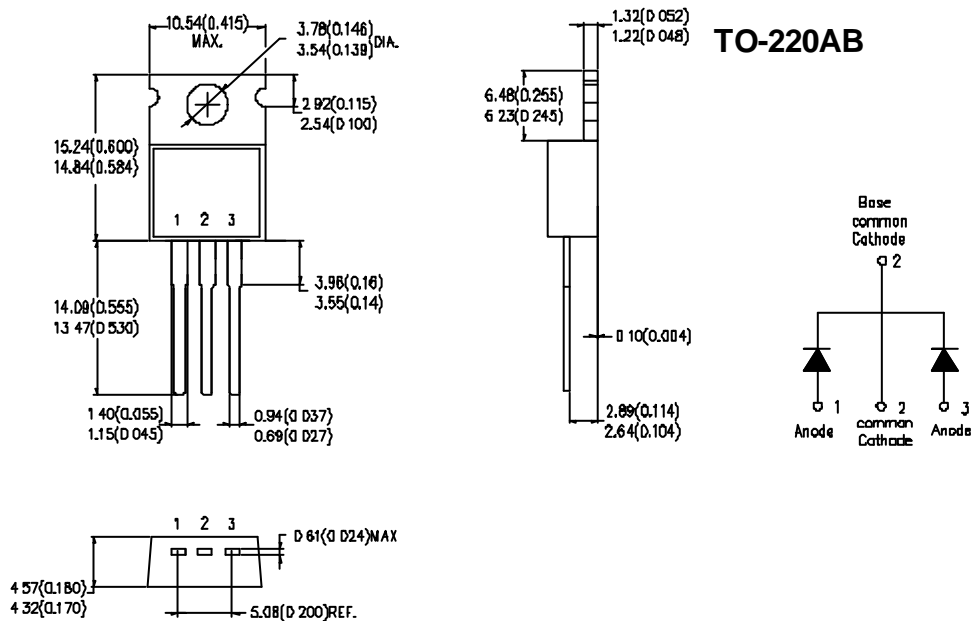


**FEP16AT-G-FEP16JT-G
ULTRAFAST PLASTIC RECTIFIER****Mechanical Data**

- Case: JEDEC TO-220AB molded plastic body over passivated chips
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting Position: Any
- Mounting Torque: 5 in. - lbs. max.
- Weight: 0.08 ounce, 2.24 grams

Features:

- Low forward voltage drop
- High surge current capacity
- High current capability
- High reliability
- Superfast recovery times for high efficiency
- Dual rectifier construction, positive centertap
- Green Products in Compliance with the RoHS Directive

Case styles**TO-220AB****Mechanical Dimensions: In Inches / mm**

Maximum Ratings and Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise noted.

| Parameter | Symbol | FEP 16AT-G | FEP 16BT-G | FEP 16CT-G | FEP 16DT-G | FEP 16FT-G | FEP 16GT-G | FEP 16HT-G | FEP 16JT-G | Unit |
|--|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| Maximum average forward rectified current at T _C = 100°C | I _{F(AV)} | 16 | | | | | | | | A |
| Peak forward surge current 8.3 ms single halfsine wave superimposed on rated load (JEDEC method) | I _{FSM} | 200 | | | | | | | | A |
| Typical thermal resistance (NOTE 3) | R _{θJA} R _{θJC} | 15.0 2.2 | | | | | | | | °C/W |
| Operating junction and storage temperature range | T _J , T _{STG} | -55 to +150 | | | | | | | | °C/W |

Electrical Characteristics

| Parameter | Symbol | FEP 16AT-G | FEP 16BT-G | FEP 16CT-G | FEP 16DT-G | FEP 16FT-G | FEP 16GT-G | FEP 16HT-G | FEP 16JT-G | Unit |
|---|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|
| Maximum instantaneous forward voltage per leg at 8.0 A | V _F | 0.95 | | | | 1.3 | | 1.5 | | V |
| Maximum DC reverse current at T _C = 25°C rated DC blocking voltage per leg T _C = 100°C | I _R | 10 500 | | | | | | | | μA |
| Maximum reverse recovery time per leg (NOTE 1) | t _{rr} | 35 | | | | 50 | | | | ns |
| Typical junction capacitance per leg (NOTE 2) | C _J | 85.0 | | | | | | 60 | | pF |

NOTES: (1) Reverse recovery test conditions: I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 V
(3) Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

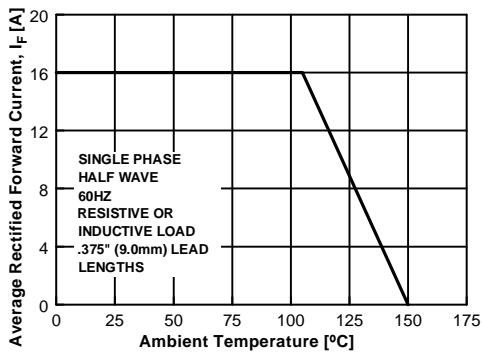


Figure 1. Forward Current Derating Curve

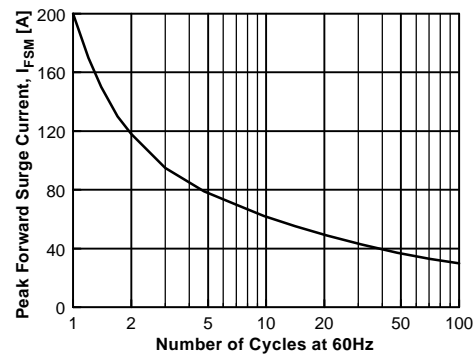


Figure 2. Non-Repetitive Surge Current Reverse Characteristics

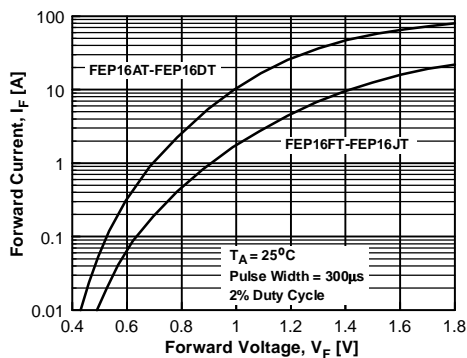


Figure 3. Forward Voltage Characteristics

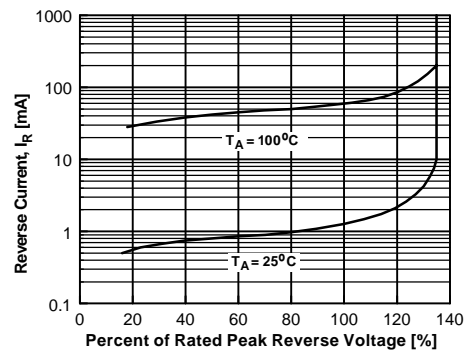


Figure 4. Reverse Current vs Reverse Voltage

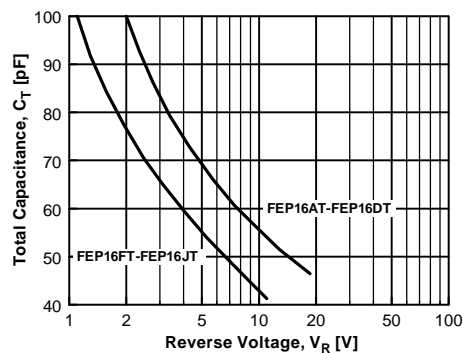
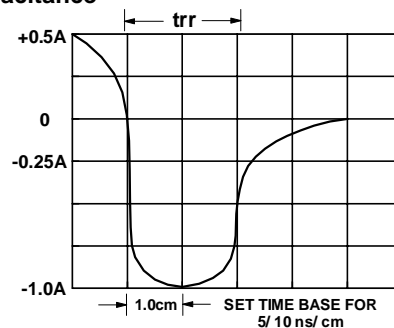
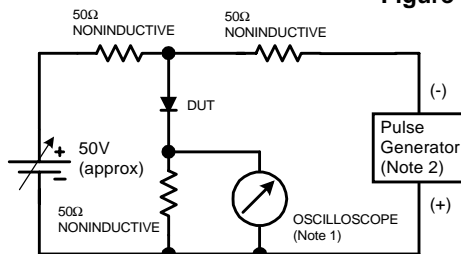


Figure 5. Total Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram

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