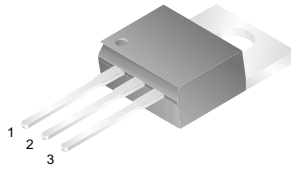


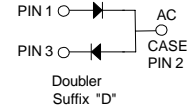
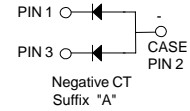
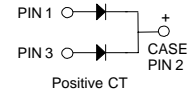
FEP16AT - FEP16JT

Features

- Low forward voltage drop.
- High surge current capacity.
- High current capability.
- High reliability.
- Average Forward Current Rating at 16A (8A per Diode).



TO-220AB



Fast Rectifiers (Glass Passivated)

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | | | | | | | | Units |
|-------------|--|-------------|------|------|------|------|------|------|------|------------------|
| | | 16AT | 16BT | 16CT | 16DT | 16FT | 16GT | 16HT | 16JT | |
| V_{RRM} | Maximum Repetitive Reverse Voltage | 50 | 100 | 150 | 200 | 300 | 400 | 500 | 600 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current, .375" lead length @ $T_A = 100^\circ\text{C}$ | 16 | | | | | | | | A |
| I_{FSM} | Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | 200 | | | | | | | | A |
| T_{stg} | Storage Temperature Range | -55 to +150 | | | | | | | | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -55 to +150 | | | | | | | | $^\circ\text{C}$ |

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

| Symbol | Parameter | Value | Units |
|-----------------|---|-------|---------------------------|
| P_D | Power Dissipation | 8.33 | W |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 15 | $^\circ\text{C}/\text{W}$ |
| $R_{\theta JL}$ | Thermal Resistance, Junction to Lead | 2.2 | $^\circ\text{C}/\text{W}$ |

Electrical Characteristics

$T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Device | | | | | | | | Units |
|----------|---|-----------|------|------|------|------|------|------|------|--------------------------------|
| | | 16AT | 16BT | 16CT | 16DT | 16FT | 16GT | 16HT | 16JT | |
| V_F | Forward Voltage @ 8.0A | 0.95 | | | 1.3 | | 1.5 | | | V |
| t_{rr} | Reverse Recovery Time $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RR} = 0.25\text{ A}$ | 35 | | | 50 | | | | | ns |
| I_R | Reverse Current @ rated V_R $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ | 10 500 | | | | | | | | μA μA |
| C_T | Total Capacitance $V_R = 4.0$, $f = 1.0\text{ MHz}$ | 85 | | | | | 60 | | | pF |

Typical Characteristics

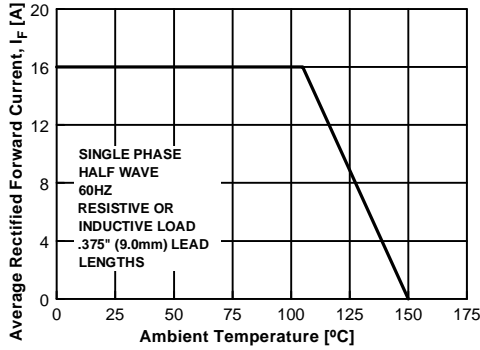


Figure 1. Forward Current Derating Curve

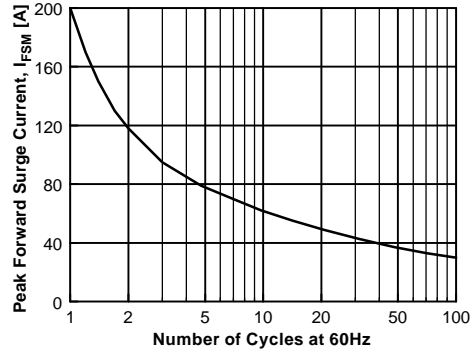


Figure 2. Non-Repetitive Surge Current Reverse Characteristics

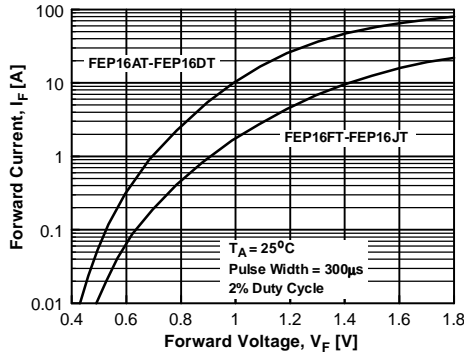


Figure 3. Forward Voltage Characteristics

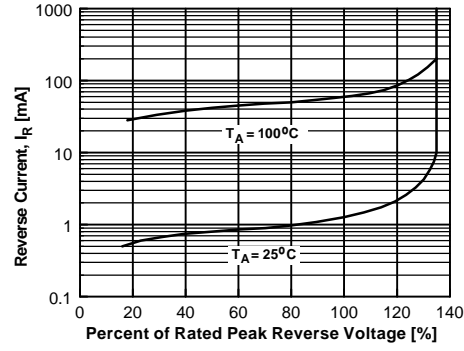


Figure 4. Reverse Current vs Reverse Voltage

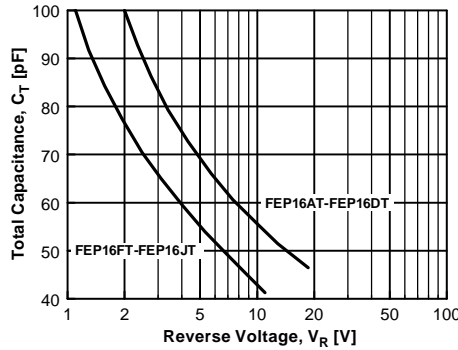
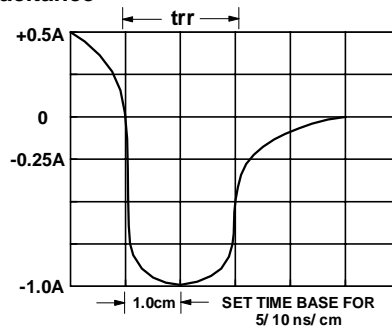
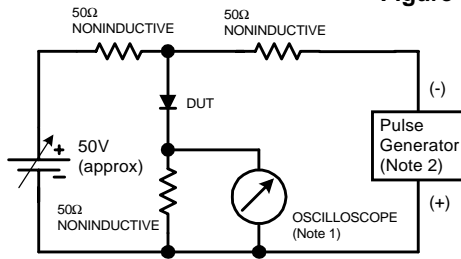


Figure 5. Total Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram

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|--------------------------|------------------------|---|
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