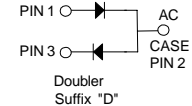
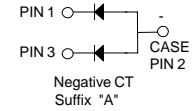
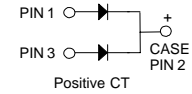
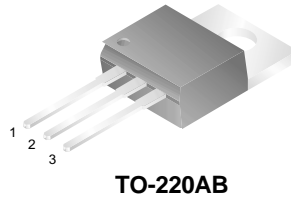




FEP16AT - FEP16JT

Features

- Low forward voltage drop.
- High surge current capacity.
- High current capability.
- High reliability.



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 | $^\circ\text{C/W}$ |
| $R_{\theta JL}$ | Thermal Resistance, Junction to Lead | 2.2 | $^\circ\text{C/W}$ |

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 A, I _R = 1.0 A, I _{RR} = 0.25 A | 35 | | | | 50 | | | | ns |
| I _R | Reverse Current @ rated V _R T _A = 25°C T _A = 100°C | 10 500 | | | | | | | | μA μA |
| C _T | Total Capacitance V _R = 4.0. f = 1.0 MHz | 85 | | | | | | 60 | | pF |

Typical Characteristics

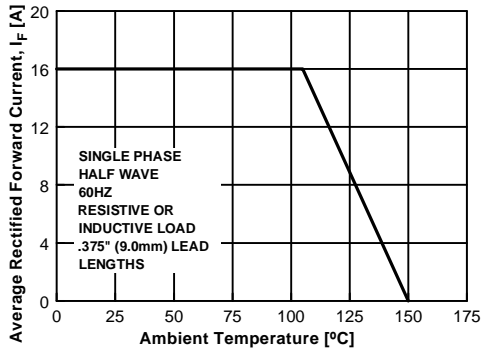


Figure 1. Forward Current Derating Curve

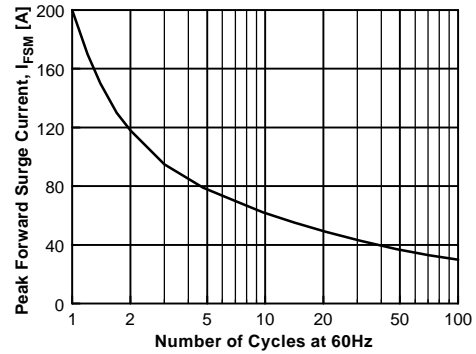


Figure 2. Non-Repetitive Surge Current Reverse Characteristics

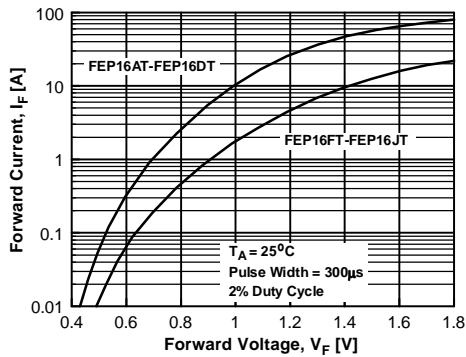


Figure 3. Forward Voltage Characteristics

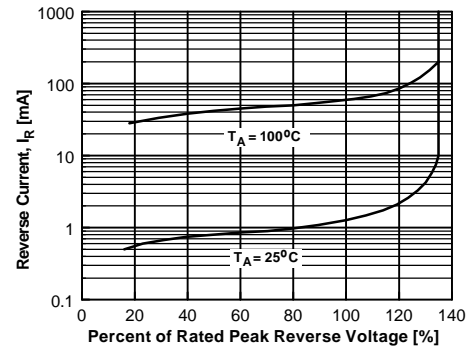


Figure 4. Reverse Current vs Reverse Voltage

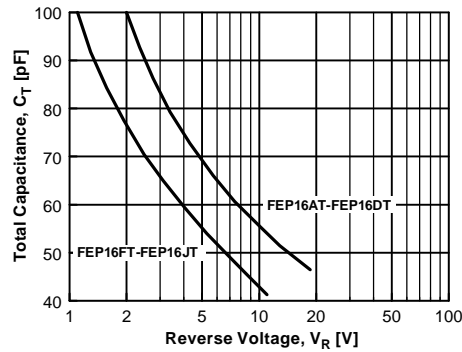
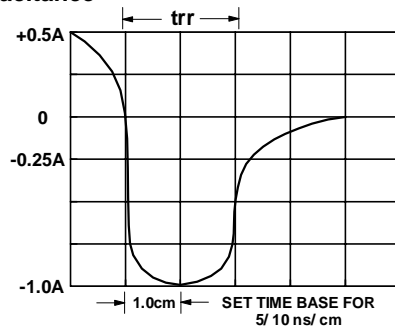
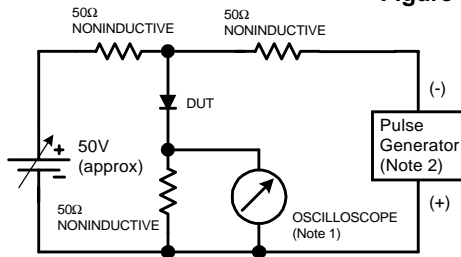


Figure 5. Total Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram

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| CROSSVOLT™ | GlobalOptoisolator™ | POP™ | SuperSOT™-3 | |
| DenseTrench™ | GTO™ | Power247™ | SuperSOT™-6 | |
| DOMETM | HiSeC™ | PowerTrench® | SuperSOT™-8 | |
| EcoSPARK™ | ISOPLANAR™ | QFET™ | SyncFET™ | |
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