

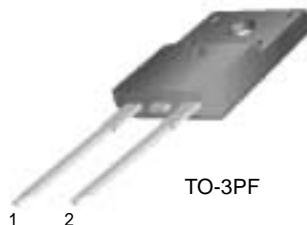
FFAF10U170S

Features

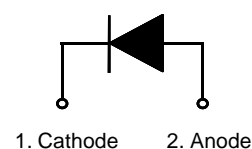
- High voltage and high reliability
- High speed switching
- Low forward voltage

Applications

- Suitable for damper diode in horizontal deflection circuits



TO-3PF



DAMPER DIODE

Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|----------------|---|--------------|------------------|
| V_{RRM} | Peak Repetitive Reverse Voltage | 1700 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current @ $T_C = 125^\circ\text{C}$ | 10 | A |
| I_{FSM} | Non-repetitive Peak Surge Current 60Hz Single Half-Sine Wave | 100 | A |
| T_J, T_{STG} | Operating Junction and Storage Temperature | - 65 to +150 | $^\circ\text{C}$ |

Thermal Characteristics

| Symbol | Parameter | Value | Units |
|-----------------|--|-------|--------------------|
| $R_{\theta JC}$ | Maximum Thermal Resistance, Junction to Case | 1.5 | $^\circ\text{C/W}$ |

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Min. | Typ. | Max. | Units | |
|------------|---|---------------------------|------|------|-------|----|
| V_{FM}^* | Maximum Instantaneous Forward Voltage $I_F = 10\text{A}$ $I_F = 10\text{A}$ | $T_C = 25^\circ\text{C}$ | - | - | 2.2 | V |
| | | $T_C = 125^\circ\text{C}$ | - | - | 2.0 | |
| I_{RM}^* | Maximum Instantaneous Reverse Current @ rated V_R | $T_C = 25^\circ\text{C}$ | - | - | 0.1 | mA |
| | | $T_C = 125^\circ\text{C}$ | - | - | 10 | |
| t_{rr} | Maximum Reverse Recovery Time ($I_F = 1\text{A}$, $di/dt = 50\text{A}/\mu\text{s}$) | - | - | 140 | ns | |
| t_{fr} | Maximum Forward Recovery Time ($I_F = 6.5\text{A}$, $di/dt = 50\text{A}/\mu\text{s}$) | - | - | 400 | ns | |
| V_{FRM} | Maximum Forward Recovery Voltage | - | - | 13 | V | |

* Pulse Test: Pulse Width=300 μs , Duty Cycle=2%

Typical Characteristics

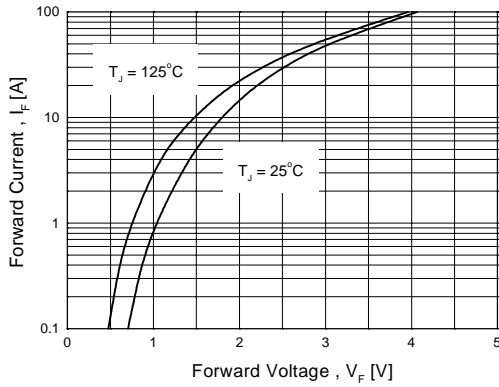


Figure 1. Typical Forward Voltage Drop vs. Forward Current

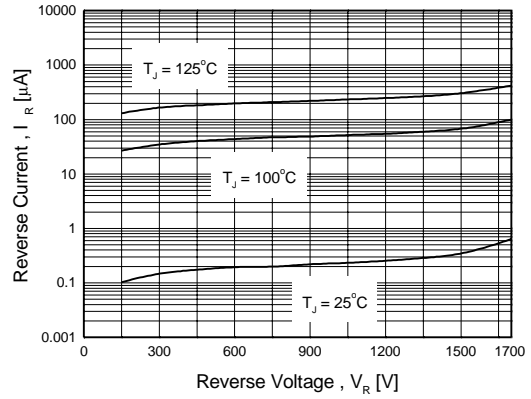


Figure 2. Typical Reverse Current vs. Reverse Voltage

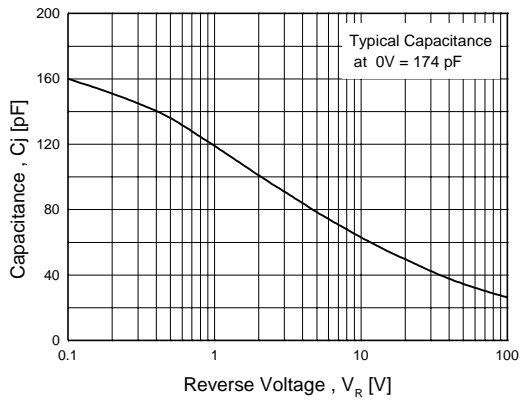


Figure 3. Typical Junction Capacitance

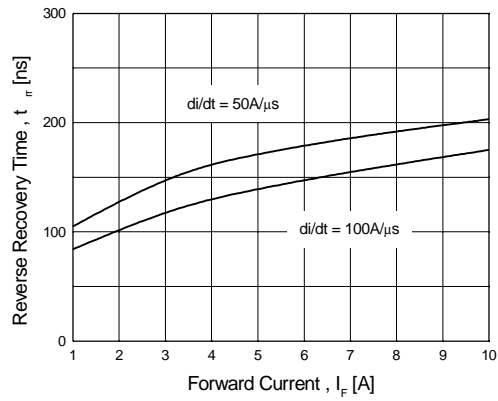


Figure 4. Typical Reverse Recovery Time vs. Forward Current

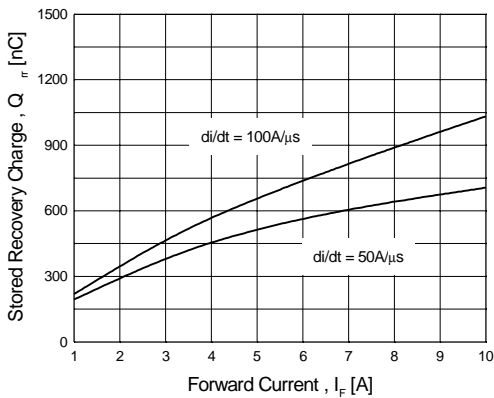


Figure 5. Typical Stored Charge vs. Forward Current

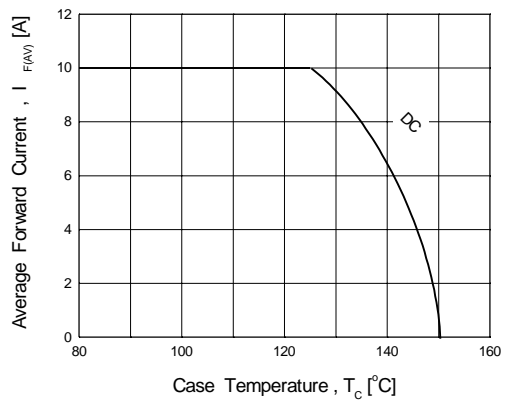
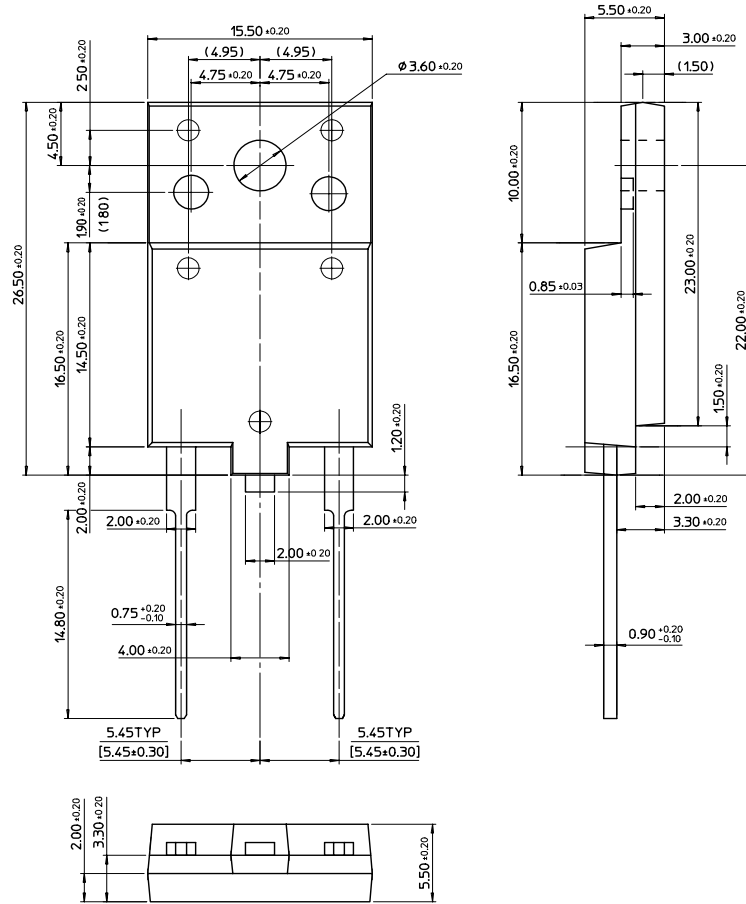


Figure 6. Forward Current Derating Curve

Package Dimensions

TO-3PF-2L

FFAF10U170S



Dimensions in Millimeters

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