FAIRCHILD
SEMICONDUCTOR®

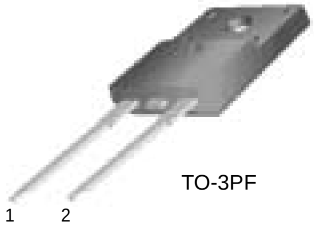
FFAF10U170S

Features

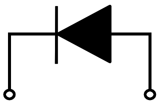
- High voltage and high reliability
- High speed switching
- Low forward voltage

Applications

- Suitable for damper diode in horizontal deflection circuits



TO-3PF



1. Cathode 2. Anode

DAMPER DIODE

Absolute Maximum Ratings T_C=25°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°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	°C

Thermal Characteristics

Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case	1.5	°C/W

Electrical Characteristics T_C=25 °C unless otherwise noted

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

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

Typical Characteristics

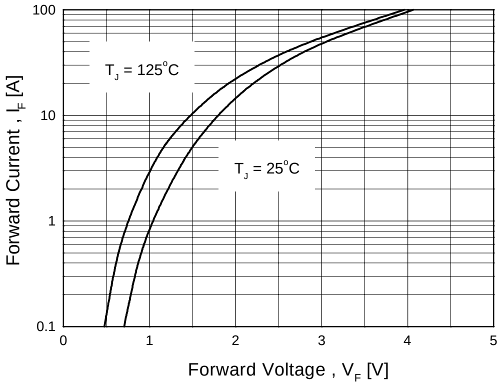


Figure 1. Typical Forward Voltage Drop vs. Forward Current

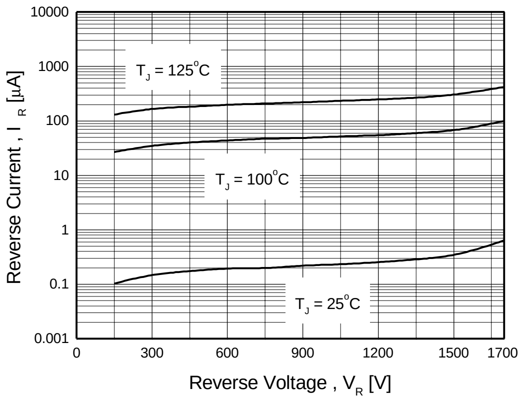


Figure 2. Typical Reverse Current vs. Reverse Voltage

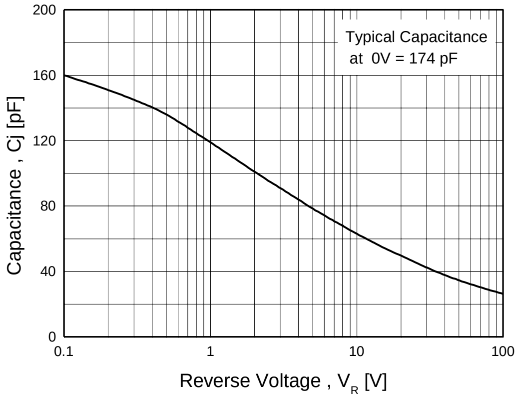


Figure 3. Typical Junction Capacitance

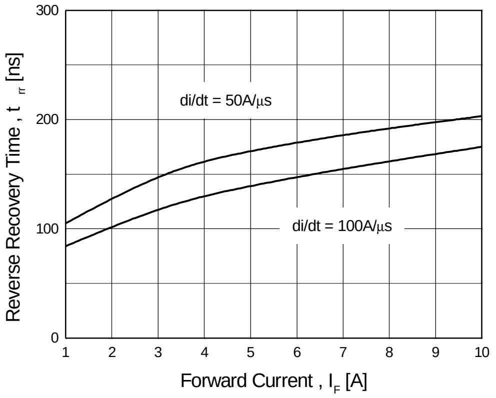


Figure 4. Typical Reverse Recovery Time vs. Forward Current

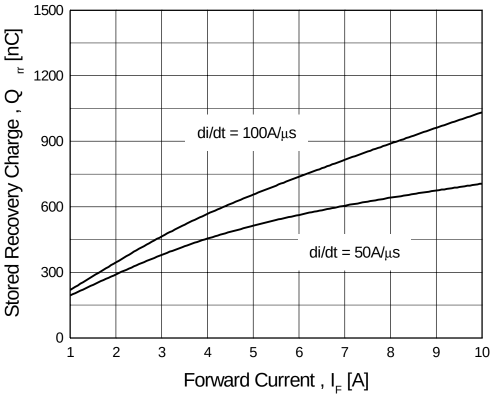


Figure 5. Typical Stored Charge vs. Forward Current

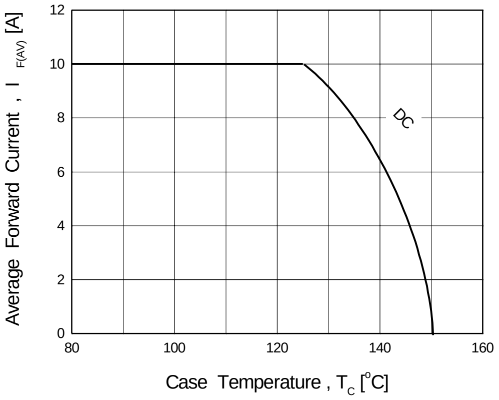
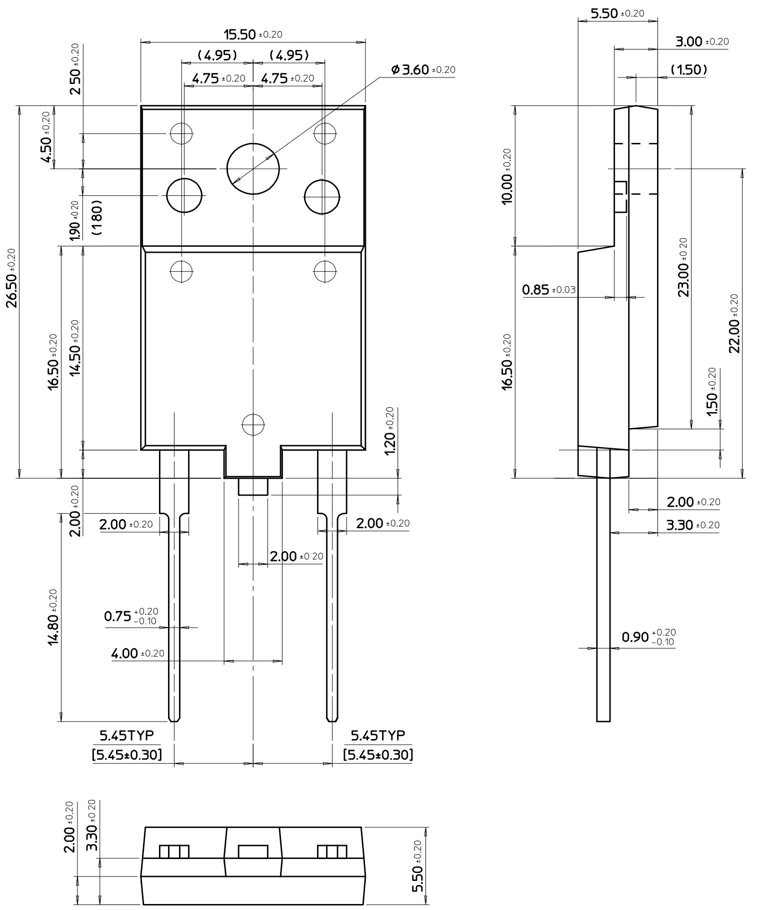


Figure 6. Forward Current Derating Curve

Package Dimensions

TO-3PF-2L



Dimensions in Millimeters

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