

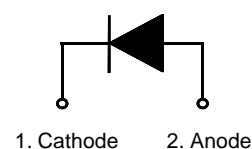
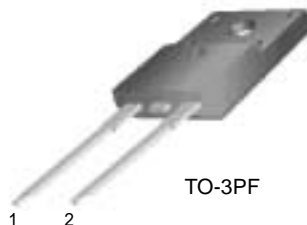
## FFAF10U170S

### Features

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

### Applications

- Suitable for damper diode in horizontal deflection circuits



## 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 $\mu\text{s}$ , Duty Cycle=2%

# Typical Characteristics

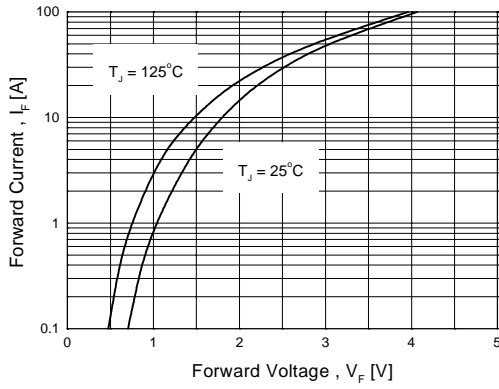


Figure 1. Typical Forward Voltage Drop vs. Forward Current

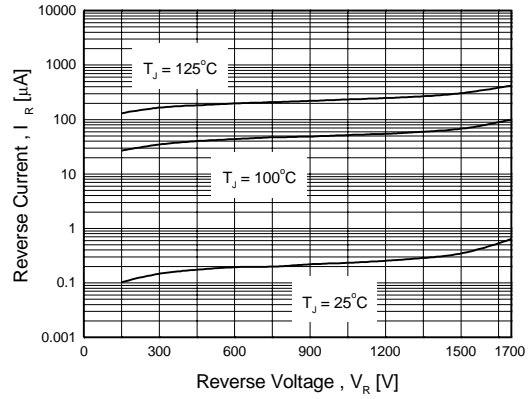


Figure 2. Typical Reverse Current vs. Reverse Voltage

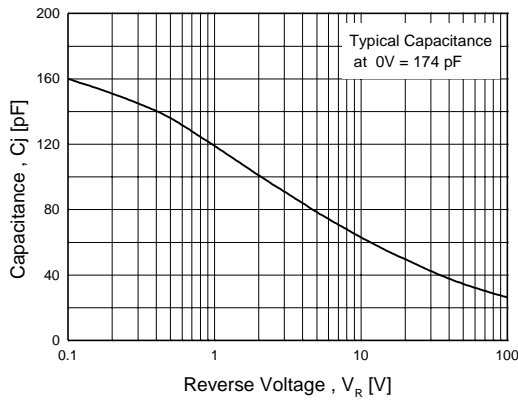


Figure 3. Typical Junction Capacitance

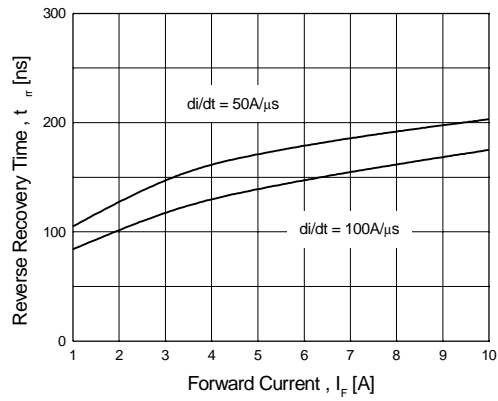


Figure 4. Typical Reverse Recovery Time vs. Forward Current

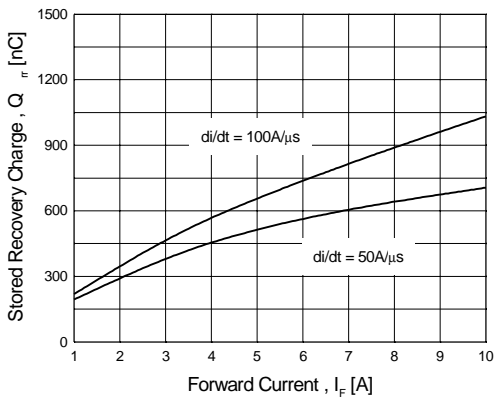


Figure 5. Typical Stored Charge vs. Forward Current

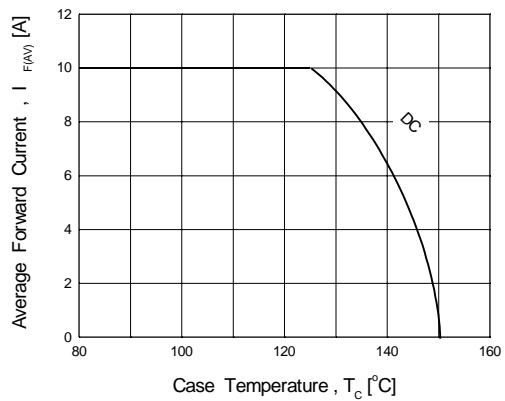
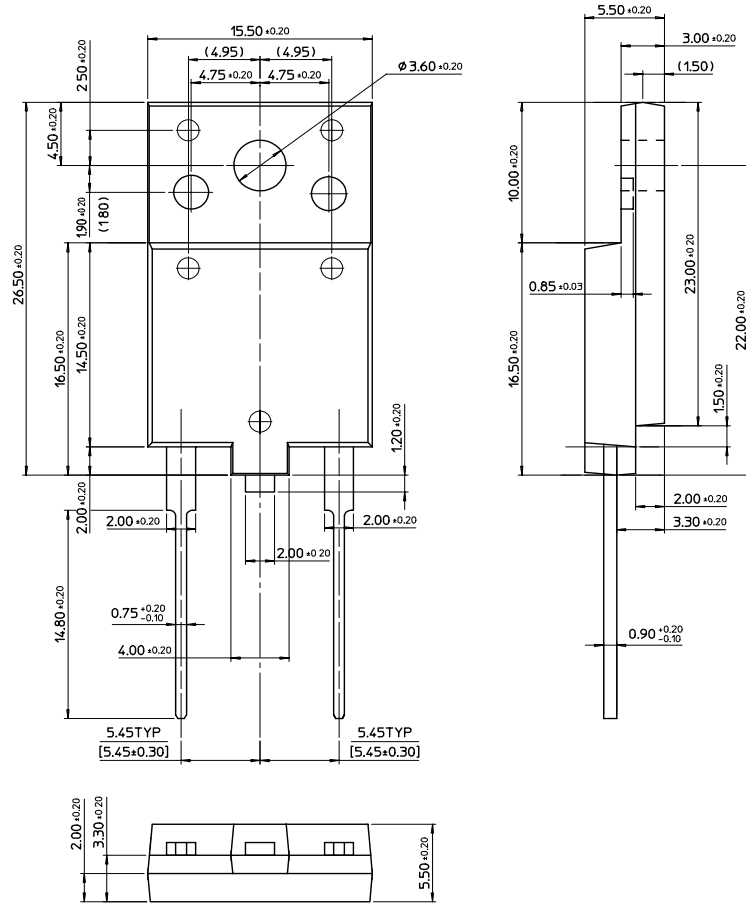


Figure 6. Forward Current Derating Curve

# Package Dimensions

## TO-3PF-2L

FFAF10U170S



Dimensions in Millimeters

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