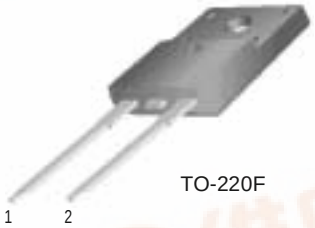
FAIRCHILD SEMICONDUCTOR TM

FFPF14U150S

Features

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



TO-220F

1. Cathode 2. Anode

Applications

- Suitable for damper diode in horizontal deflection circuits

DAMPER DIODE

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter		Value	Units
V_{RRM}	Peak Repetitive Reverse Voltage		1500	V
$I_{F(AV)}$	Average Rectified Forward Current	@ T_C = 125°C	14	A
I_{FSM}	Non-repetitive Peak Surge Current 60Hz Single Half-Sine Wave		140	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					V
	I_F = 14A	T_C = 25 °C	-	-	1.8	
	I_F = 14A	T_C = 125 °C	-	-	1.7	
I_{RM} *	Maximum Instantaneous Reverse Current					µA
	@ rated V_R	T_C = 25 °C	-	-	20	
		T_C = 125 °C	-	-	300	
t_{rr}	Maximum Reverse Recovery Time (I_F =1A, di/dt = 50A/µs)		-	-	150	ns
t_{fr}	Maximum Forward Recovery Time (I_F =6.5A, di/dt = 50A/µs)		-	-	270	ns
V_{FRM}	Maximum Forward Recovery Voltage		-	-	12	V

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

Typical Characteristics

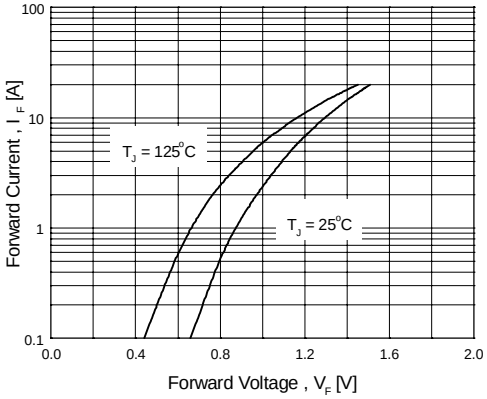


Figure 1. Typical Forward Voltage Drop vs. Forward Current

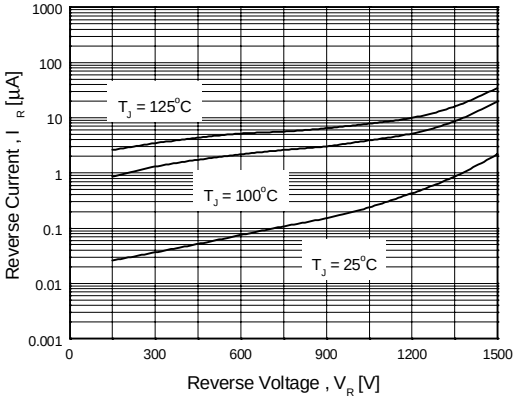


Figure 2. Typical Reverse Current vs. Reverse Voltage

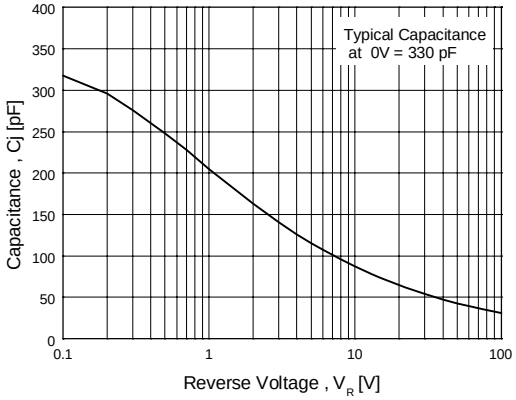


Figure 3. Typical Junction Capacitance

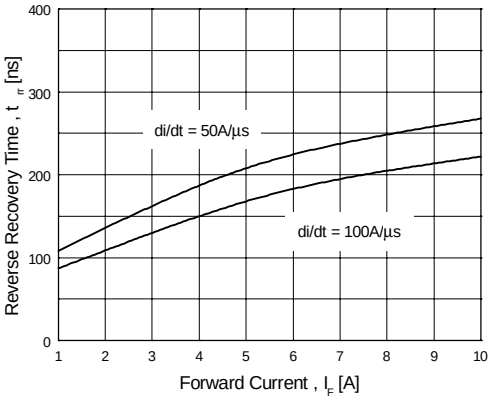


Figure 4. Typical Reverse Recovery Time vs. Forward Current

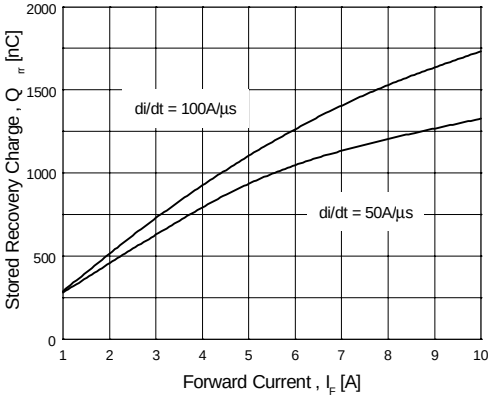


Figure 5. Typical Stored Charge vs. Forward Current

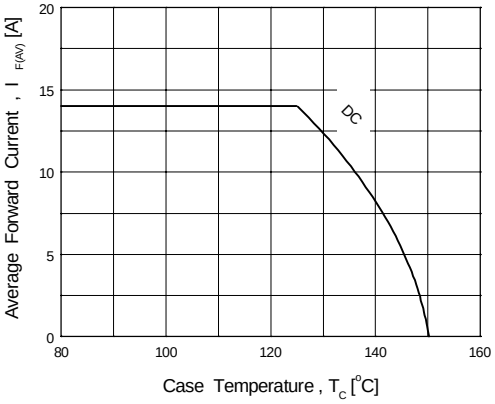
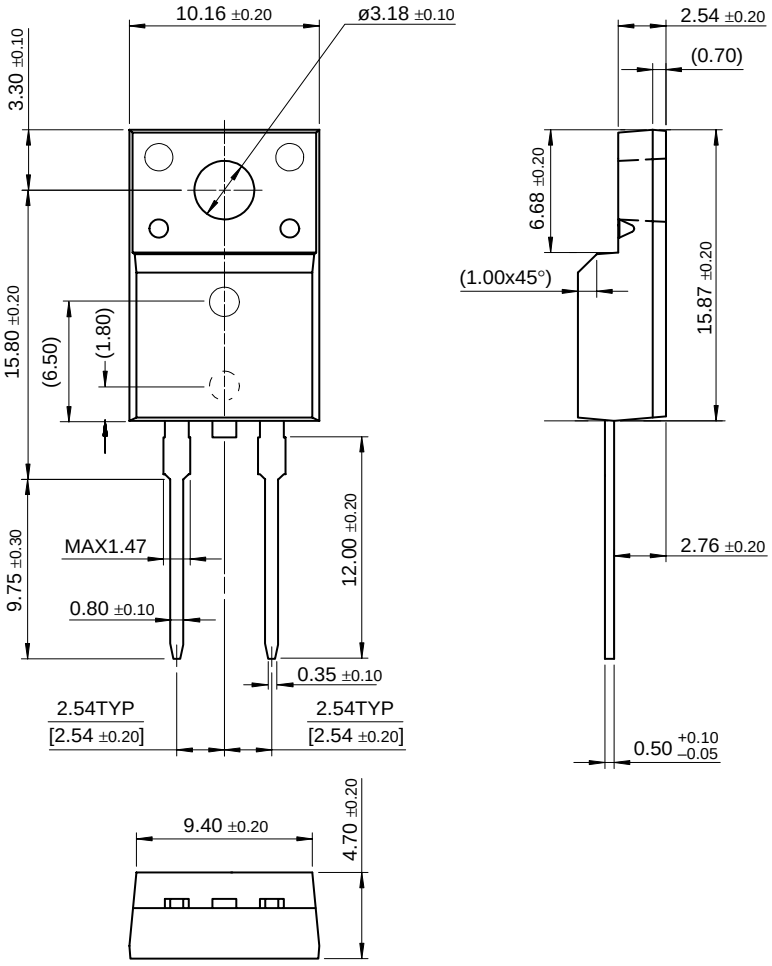


Figure 6. Forward Current Derating Curve

Package Dimensions

TO-220F 2L



Dimensions in Millimeters

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