

# **Excellent Integrated System Limited**

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Fairchild Semiconductor FFPF06F150STU

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# **FFPF06F150S**

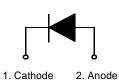
### **Features**

- · 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<sub>C</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	1500	V
I <sub>F(AV)</sub>	Average Rectified Forward Current @ T <sub>C</sub> = 125°C	6	Α
I <sub>FSM</sub>	Non-repetitive Peak Surge Current 60Hz Single Half-Sine Wave	60	А
T <sub>J,</sub> T <sub>STG</sub>	Operating Junction and StorageTemperature	- 65 to +150	°C

### **Thermal Characteristics**

Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case	4.0	°C/W

## Electrical Characteristics T<sub>C</sub>=25 °C unless otherwise noted

Symbol	Parameter		Min.	Тур.	Max.	Units
V <sub>FM</sub> *	Maximum Instantaneous Forward Voltage					V
	I <sub>F</sub> = 6A	T <sub>C</sub> = 25 °C	-	-	1.6	
	I <sub>F</sub> = 6A	T <sub>C</sub> = 25 °C T <sub>C</sub> = 125 °C	-	-	1.4	
I <sub>RM</sub> *	Maximum Instantaneous Reverse Current					μΑ
	@ rated V <sub>R</sub>	$T_C = 25  ^{\circ}C$	-	-	7	
		$T_C = 25  ^{\circ}C$ $T_C = 125  ^{\circ}C$	-	-	60	
t <sub>rr</sub>	Maximum Reverse Recovery Time (I <sub>F</sub> =1A, di/dt = 50A/μs)		-	-	170	ns
t <sub>fr</sub>	Maximum Forward Recovery Time (I <sub>F</sub> =6.5A, di/dt = 50A/μs)		-	-	350	ns
V <sub>FRM</sub>	Maximum Forward Recovery Voltage		-	-	17	V

<sup>\*</sup> Pulse Test: Pulse Width=300μs, Duty Cycle=2%





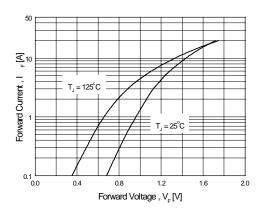


Figure 1. Typical Forward Voltage Drop vs. Forward Current

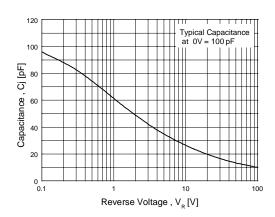


Figure 3. Typical Junction Capacitance

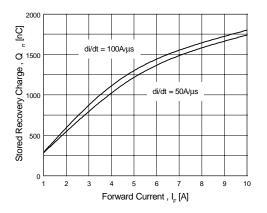


Figure 5. Typical Stored Charge vs. Forward Current

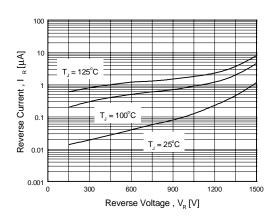


Figure 2. Typical Reverse Current vs. Reverse Voltage

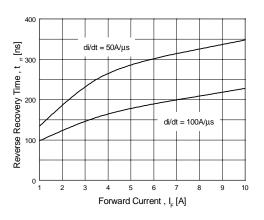


Figure 4. Typical Reverse Recovery Time vs. Forward Current

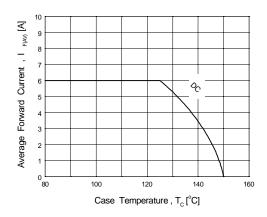


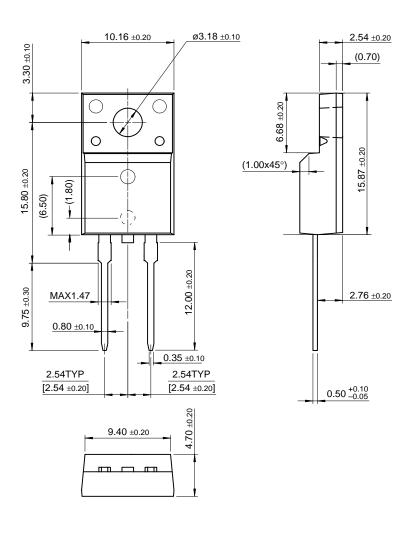
Figure 6. Forward Current Derating Curve

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# **Package Dimensions**

# TO-220F 2L



Dimensions in Millimeters

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# Distributor of Fairchild Semiconductor: Excellent Integrated System Limited

Datasheet of FFPF06F150STU - DIODE GEN PURP 1.5KV 6A TO220F

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Rev. F1