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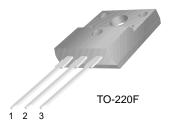
## FYPF2010DN

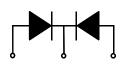
#### **Features**

- · Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection

## **Applications**

- Switched mode power supply
- Freewheeling diodes
- Polarity protection





1. Anode 2. Cathode 3. Anode

### **20A SCHOTTKY BARRIER RECTIFIER**

#### Absolute Maximum Ratings T<sub>C</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	100	V
V <sub>R</sub>	Maximum DC Reverse Voltage	100	V
I <sub>F(AV)</sub>	Maximum Average Rectified Current @ T <sub>C</sub> = 105°C	20	Α
I <sub>FSM</sub>	Maximum Forward Surge Current (per diode) 60Hz Single Half-Sine Wave	150	А
T <sub>J,</sub> T <sub>STG</sub>	Operating Junction and Storage Temperature	-65 to +150	°C

#### **Thermal Characteristics**

Symbol	Parameter	Value	Units
$R_{\theta,JC}$	Maximum Thermal Resistance, Junction to Case (per diode)	2.8	°C/W

### Electrical Characteristics (per diode) 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> = 10A	T <sub>C</sub> = 25 °C	-	-	0.77	
	I <sub>F</sub> = 10A	T <sub>C</sub> = 125 °C	-	-	0.65	
	I <sub>F</sub> = 20A	T <sub>C</sub> = 25 °C	-	-	-	
	I <sub>F</sub> = 20A	T <sub>C</sub> = 125 °C	-	-	0.75	
I <sub>RM</sub> *	Maximum Instantaneous Reverse Current					mA
	(per diode) @ rated V <sub>R</sub>	T <sub>C</sub> = 25 °C	-	-	0.1	
		$T_C = 25  ^{\circ}C$ $T_C = 125  ^{\circ}C$	-	-	20	

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

## **Typical Characteristics**

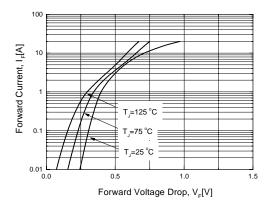


Figure 1. Typical Forward Voltage Characteristics (per diode)

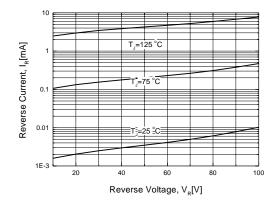


Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)

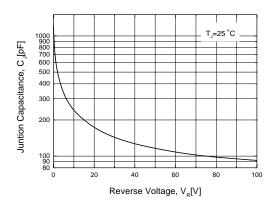


Figure 3. Typical Junction Capacitance (per diode)

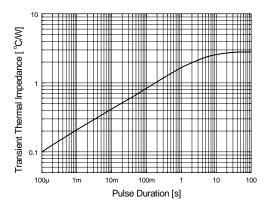


Figure 4. Thermal Impedance Characteristics (per diode)

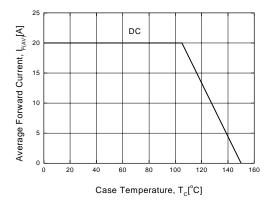


Figure 5. Forward Current Derating Curve

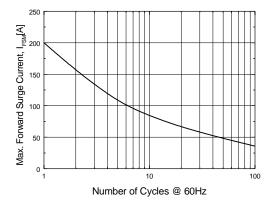
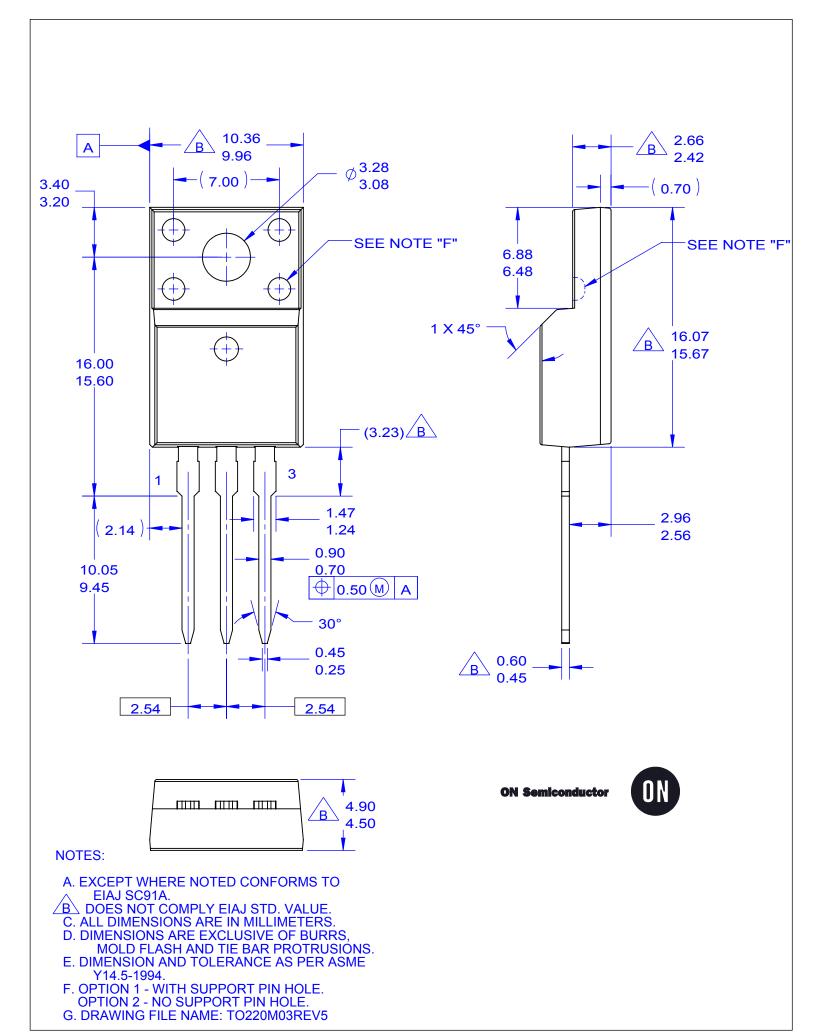


Figure 6. Non-Repetive Surge Current (per diode)



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