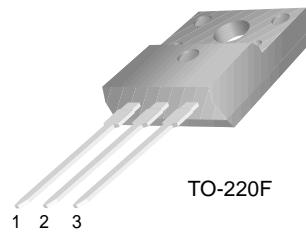


## FYPF1045DN

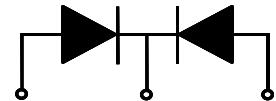
### Features

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



### Applications

- Switched mode power supply
- Freewheeling diodes



## SCHOTTKY BARRIER RECTIFIER

### Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	45	V
$V_R$	Maximum DC Reverse Voltage	45	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_C = 120^\circ\text{C}$	10	A
$I_{FSM}$	Non-repetitive Peak Surge Current (per diode) 60Hz Single Half-Sine Wave	80	A
$T_J, T_{STG}$	Operating Junction and Storage Temperature	-65 to +150	°C

### Thermal Characteristics

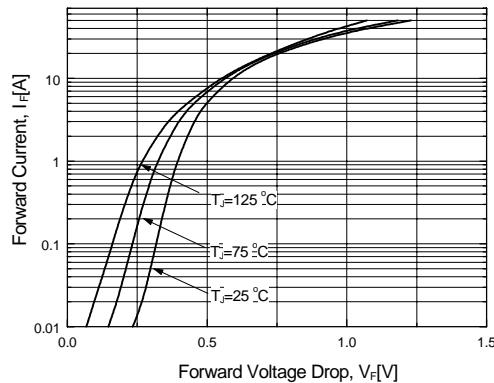
Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case (per diode)	4.5	°C/W

### Electrical Characteristics (per diode) $T_C=25^\circ\text{C}$ unless otherwise noted

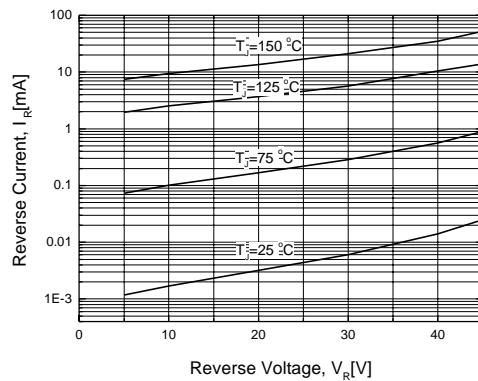
Symbol	Parameter	Value	Units	
$V_{FM}$ *	Maximum Instantaneous Forward Voltage $I_F = 5\text{A}$ $I_F = 5\text{A}$ $I_F = 10\text{A}$ $I_F = 10\text{A}$	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$ $T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$	0.55 0.49 0.70 0.65	V
$I_{RM}$ *	Maximum Instantaneous Reverse Current @ rated $V_R$	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$	1 40	mA

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

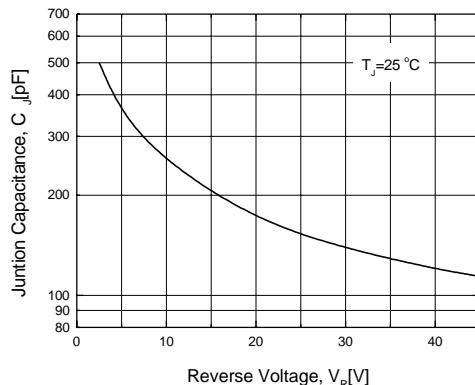
## Typical Characteristics



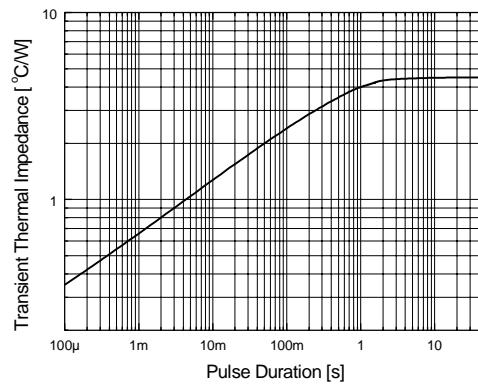
**Figure 1. Typical Forward Voltage Characteristics (per diode)**



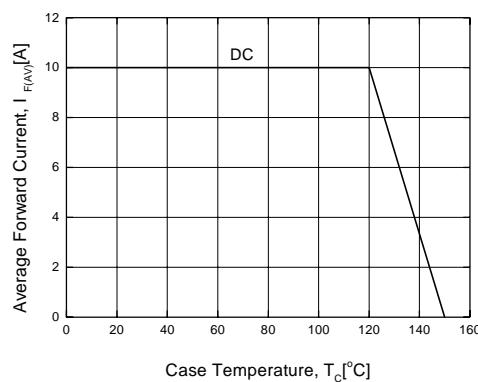
**Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)**



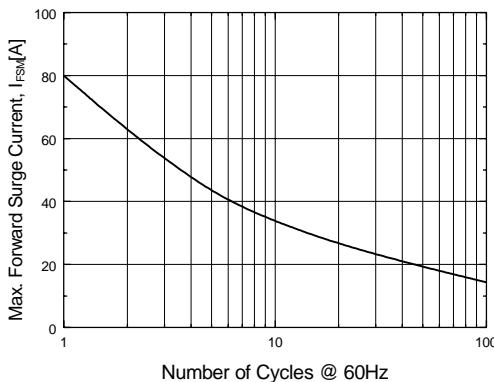
**Figure 3. Typical Junction Capacitance (per diode)**



**Figure 4. Thermal Impedance Characteristics (per diode)**



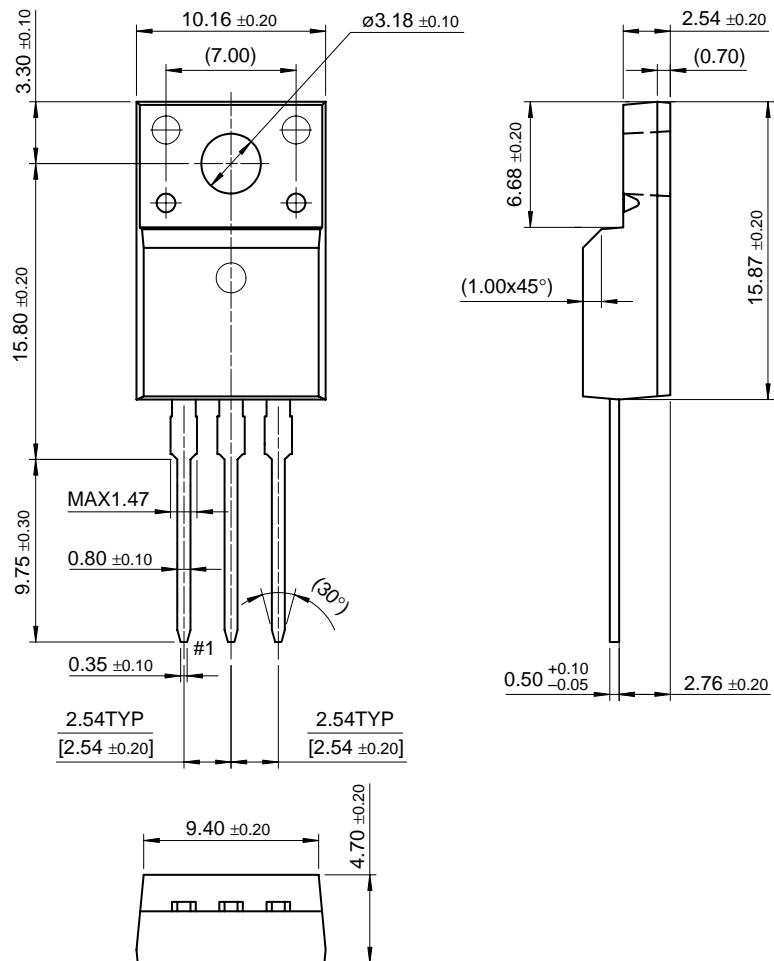
**Figure 5. Forward Current Derating Curve**



**Figure 6. Non-Repetitive Surge Current (per diode)**

## Package Dimensions

## TO-220F



Dimensions in Millimeters

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