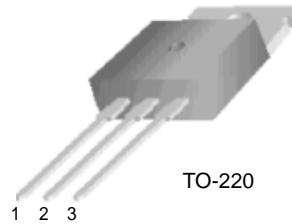




FYP1004DN

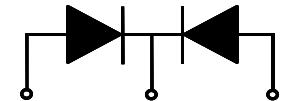
Features

- 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	40	V
V_R	Maximum DC Reverse Voltage	40	V
$I_F(AV)$	Average Rectified Forward Current @ $T_C = 137^\circ\text{C}$	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

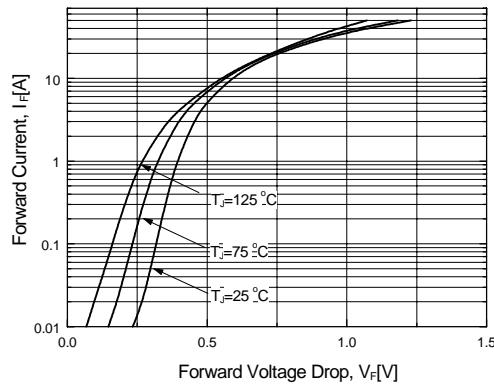
Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case (per diode)	3.0	°C/W

Electrical Characteristics (per diode)

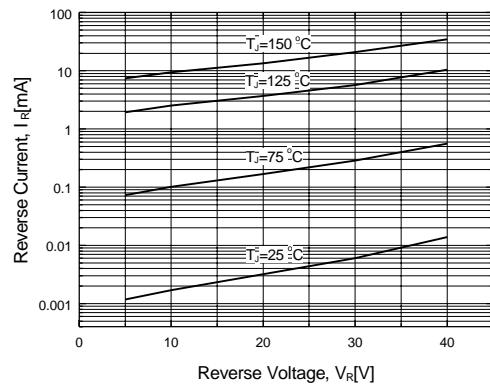
Symbol	Parameter	Value	Units
$V_{FM} *$	Maximum Instantaneous Forward Voltage $I_F = 5\text{A}$ $I_F = 5\text{A}$ $I_F = 10\text{A}$ $I_F = 10\text{A}$	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$ $T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$	0.55 0.49 0.67 0.65
$I_{RM} *$	Maximum Instantaneous Reverse Current @ rated V_R	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$	1 40

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

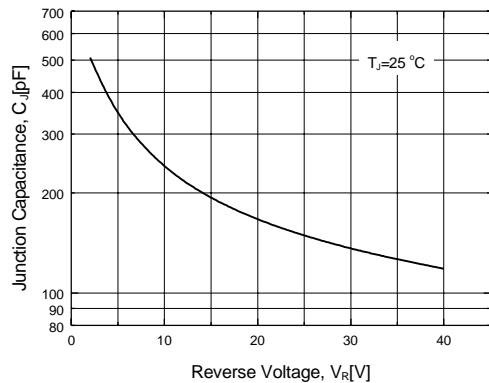
Typical Characteristics



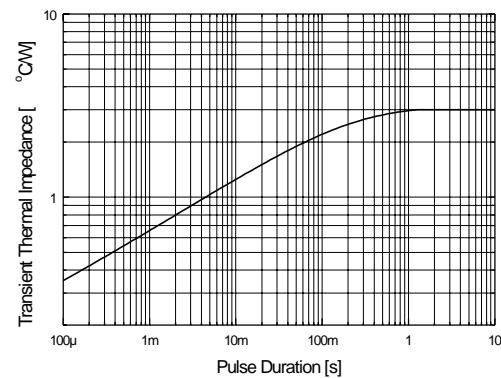
**Figure 1. Typical Forward Voltage Characteristics
(per diode)**



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



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



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

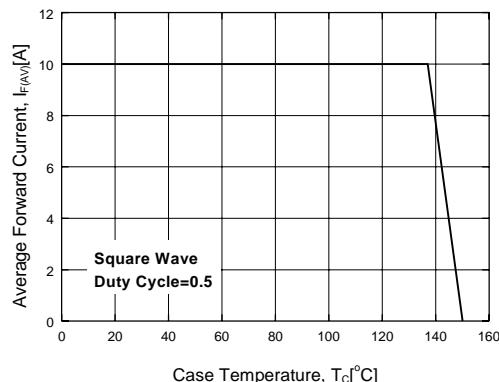
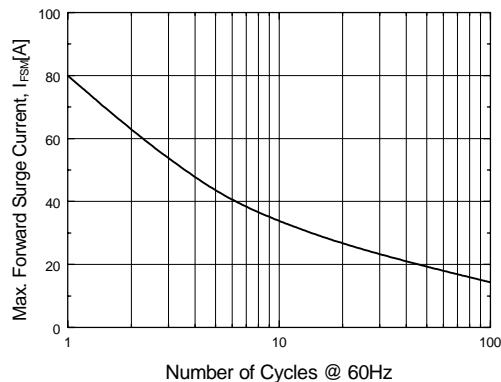


Figure 5. Forward Current Derating Curve



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