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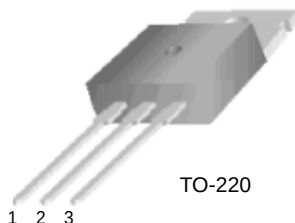
FYP2006DN

Features

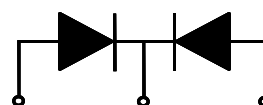
- Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection

Applications

- Switched mode power supply
- Freewheeling diodes



TO-220



1. Anode 2.Cathode 3. Anode

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	60	V
V_R	Maximum DC Reverse Voltage	60	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_C = 134^\circ\text{C}$	20	A
I_{FSM}	Non-repetitive Peak Surge Current (per diode) 60Hz Single Half-Sine Wave	200	A
T_J, T_{STG}	Operating Junction and Storage Temperature	-65 to +150	$^\circ\text{C}$

Thermal Characteristics

Symbol	Parameter	Value	Units
$R_{\theta JC}$	Maximum Thermal Resistance, Junction to Case (per diode)	1.7	$^\circ\text{C/W}$

Electrical Characteristics (per diode)

Symbol	Parameter	Value	Units
V_{FM}^*	Maximum Instantaneous Forward Voltage		V
	$I_F = 10\text{A}$	$T_C = 25^\circ\text{C}$	0.58
	$I_F = 10\text{A}$	$T_C = 125^\circ\text{C}$	0.52
	$I_F = 20\text{A}$	$T_C = 25^\circ\text{C}$	0.71
	$I_F = 20\text{A}$	$T_C = 125^\circ\text{C}$	0.65
I_{RM}^*	Maximum Instantaneous Reverse Current		mA
	@ rated V_R	$T_C = 25^\circ\text{C}$	1
		$T_C = 125^\circ\text{C}$	50

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

Typical Characteristics

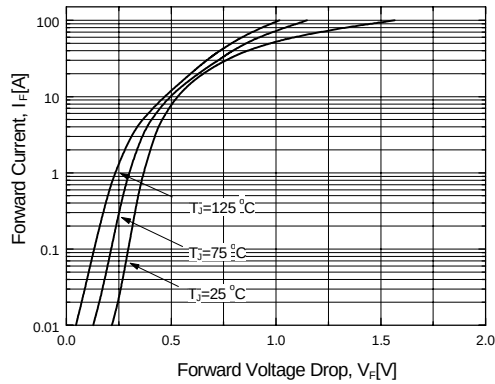


Figure 1. Typical Forward Voltage Characteristics (per diode)

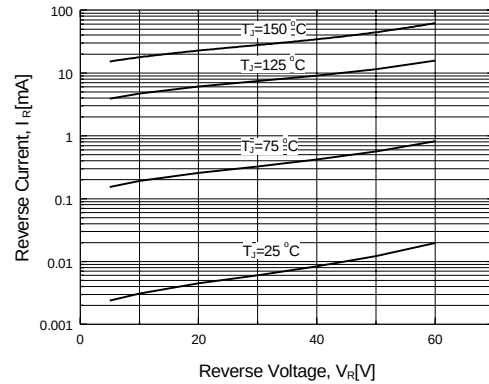


Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)

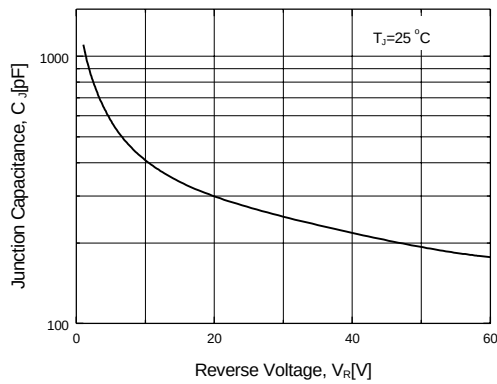


Figure 3. Typical Junction Capacitance (per diode)

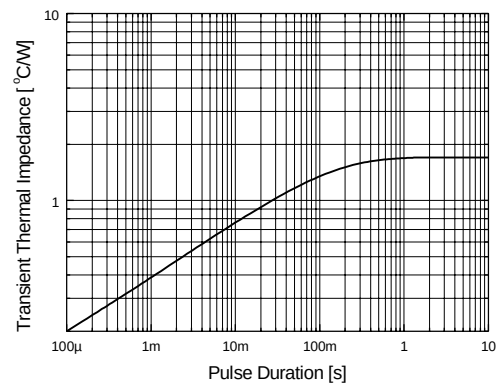


Figure 4. Thermal Impedance Characteristics (per diode)

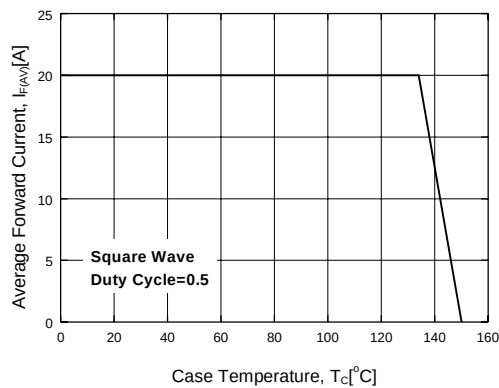


Figure 5. Forward Current Derating Curve

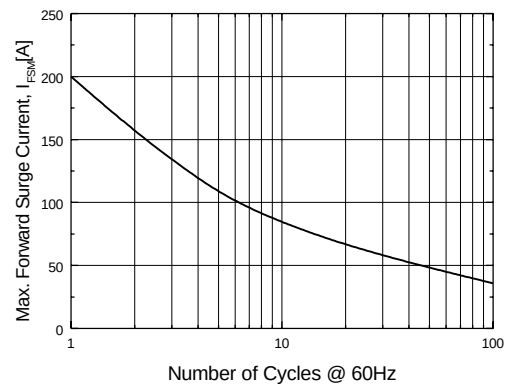


Figure 6. Non-Repetitive Surge Current (per diode)

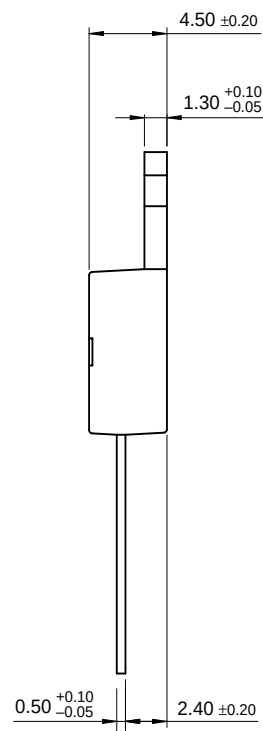
Technical drawing of a mechanical component, showing front and top views with dimensions.

Front View Dimensions:

- Overall Width: 9.90 ± 0.20
- Overall Height: 18.95 MAX.
- Top Section Height: 2.80 ± 0.10
- Top Section Width: (8.70)
- Top Section Hole Diameter: $\varnothing 3.60 \pm 0.10$
- Top Section Hole Position: (1.70) from top edge, 1.30 ± 0.10 from side edge.
- Middle Section Height: 15.90 ± 0.20
- Middle Section Width: (3.70)
- Middle Section Hole Position: (3.00) from bottom edge.
- Bottom Section Height: 10.08 ± 0.30
- Bottom Section Width: 1.27 ± 0.10 and 1.52 ± 0.10
- Bottom Section Hole Position: (1.00) from bottom edge, (1.46) from side edge.
- Bottom Section Hole Angle: (45°)
- Bottom Section Hole Position: 0.80 ± 0.10 from side edge.

Top View Dimensions:

- Overall Width: 10.00 ± 0.20
- Overall Height: 2.54 TYP
- Top Section Width: $[2.54 \pm 0.20]$
- Top Section Height: 2.54 TYP
- Top Section Width: $[2.54 \pm 0.20]$



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