

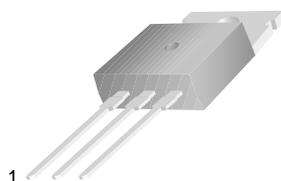
FYP1010DN

Schottky Barrier Rectifier

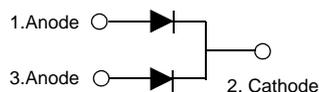
- Low forward voltage drop
- High frequency properties and switching speed
- Guard ring for over-voltage protection

Applications

- Switched mode power supply
- Freewheeling diodes



TO220 (None Jedec type)



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

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
V_R	Maximum DC Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_C = 135^{\circ}\text{C}$	10	A
I_{FSM}	Non-repetitive Peak Surge Current (per diode) 60Hz Single Half-Sine Wave	100	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)	2.5	$^{\circ}\text{C}/\text{W}$

Electrical Characteristics (per diode)

Symbol	Parameter	Value	Units
$V_{FM} *$	Maximum Instantaneous Forward Voltage	$T_C = 25^{\circ}\text{C}$	0.75
		$T_C = 125^{\circ}\text{C}$	0.65
		$T_C = 25^{\circ}\text{C}$	0.95
		$T_C = 125^{\circ}\text{C}$	0.73
$I_{RM} *$	Maximum Instantaneous Reverse Current @ rated V_R	$T_C = 25^{\circ}\text{C}$	1
		$T_C = 125^{\circ}\text{C}$	30

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

Typical Performance Characteristics

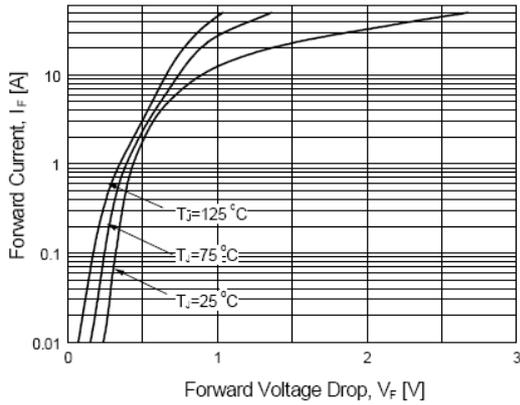


Figure 1. Typical Forward Voltage Characteristics (per diode)

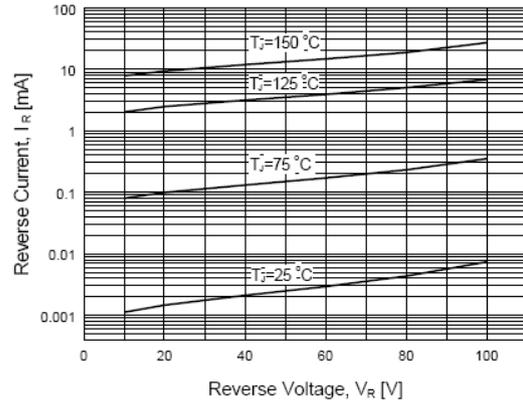


Figure 2. Typical Reverse Current vs. Reverse Voltage (per diode)

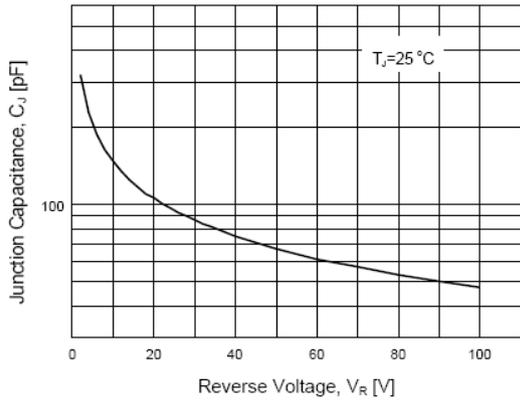


Figure 3. Typical Junction Capacitance (per diode)

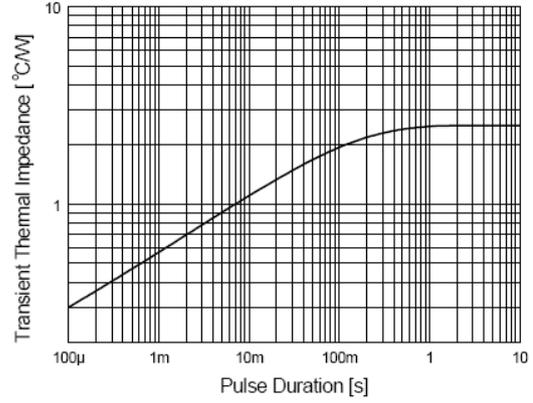


Figure 4. Thermal Impedance Characteristics (per diode)

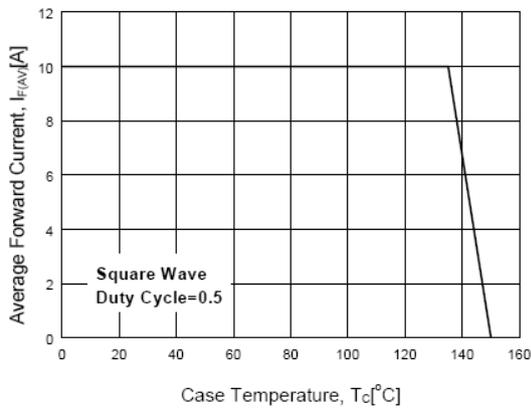


Figure 5. Forward Current Derating Curve

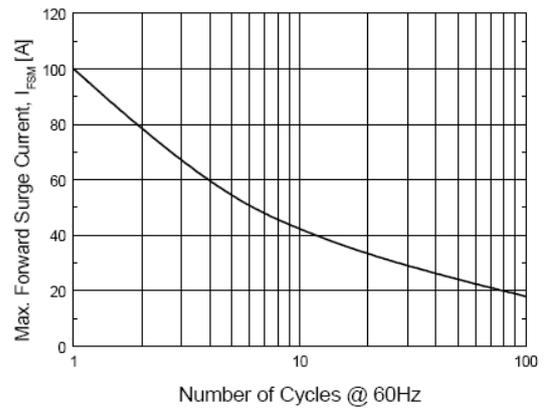
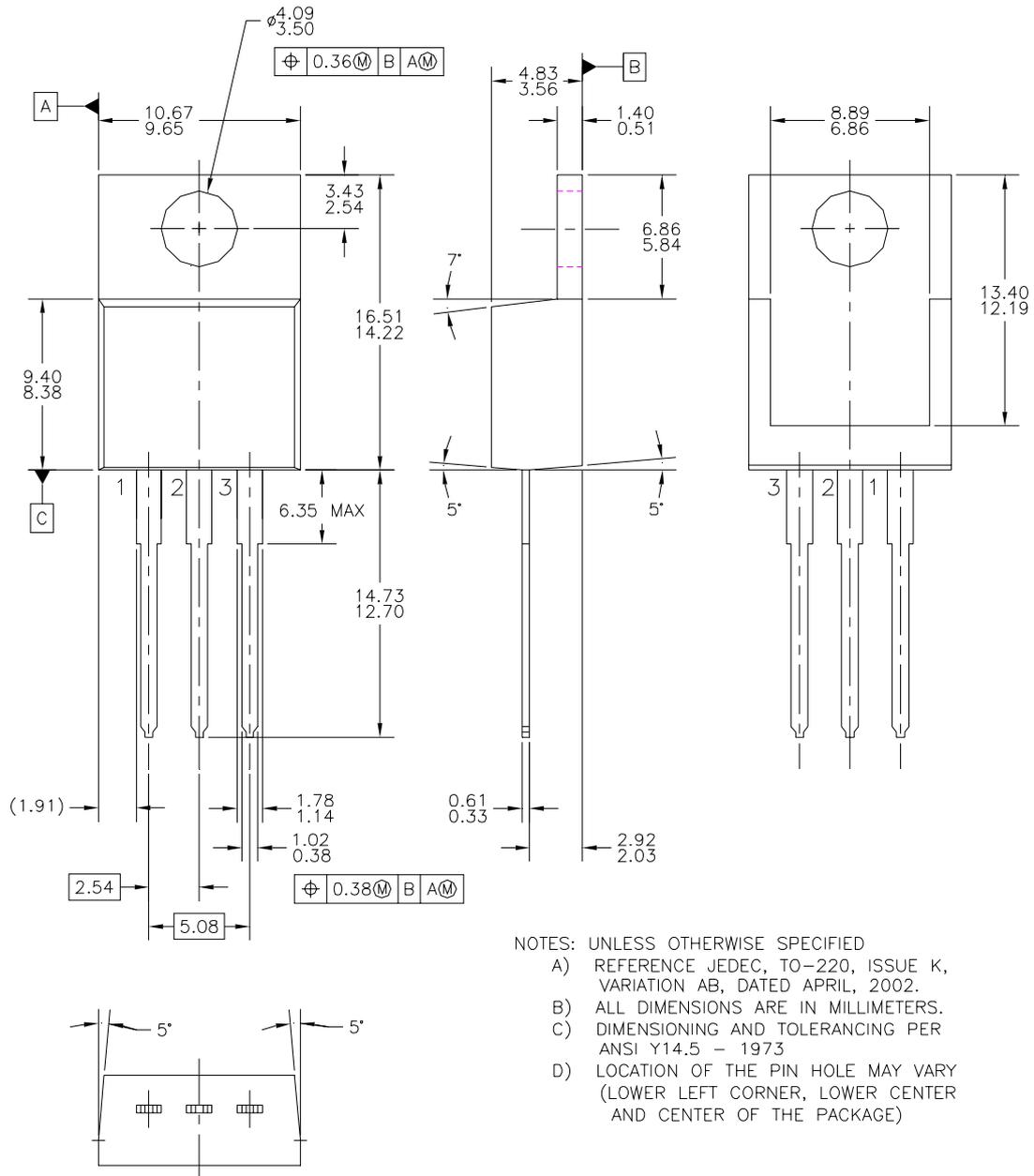


Figure 6. Non-Repetitive Surge Current (per diode)

Package Dimensions

TO-220



- NOTES: UNLESS OTHERWISE SPECIFIED
- REFERENCE JEDEC, TO-220, ISSUE K, VARIATION AB, DATED APRIL, 2002.
 - ALL DIMENSIONS ARE IN MILLIMETERS.
 - DIMENSIONING AND TOLERANCING PER ANSI Y14.5 - 1973
 - LOCATION OF THE PIN HOLE MAY VARY (LOWER LEFT CORNER, LOWER CENTER AND CENTER OF THE PACKAGE)

TO220B03REVD

Dimensions in Millimeters



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CoolFET™	l ² C™	PACMAN™	SuperFET™	
CROSSVOLT™	i-Lo™	POPT™	SuperSOT™-3	
DOME™	ImpliedDisconnect™	Power247™	SuperSOT™-6	
EcoSPARK™	IntelliMAX™	PowerEdge™	SuperSOT™-8	
E ² CMOS™	ISOPLANAR™	PowerSaver™	SyncFET™	
EnSigna™	LittleFET™	PowerTrench®	TCM™	
FACT®	MICROCOUPLER™	QFET®	TinyBoost™	
FAST®	MicroFET™	QS™	TinyBuck™	
FASTr™	MicroPak™	QT Optoelectronics™	TinyPWM™	
FPS™	MICROWIRE™	Quiet Series™	TinyPower™	
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	MSXPro™	RapidConnect™	TINYOPTO™	
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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