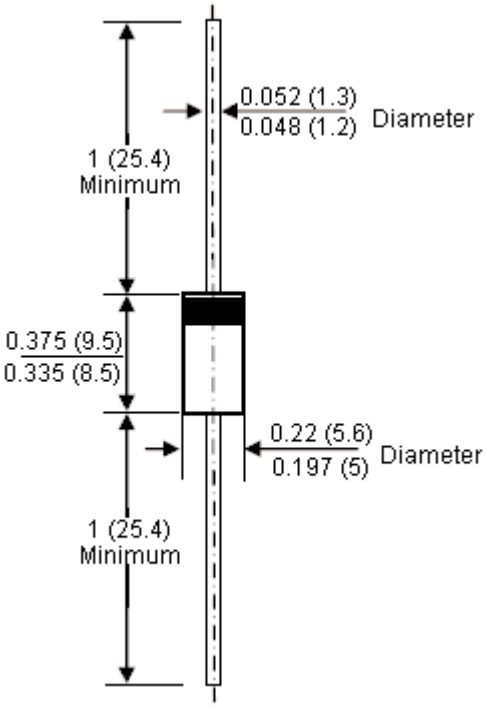
Ultra Fast Rectifier

Reverse Voltage - 50 V
Forward Current - 3 Amperes

DO - 27



Dimensions : Inches (Millimetres)

Features:

- Diffused junction.
- Ultra fast switching for high efficiency.
- Low reverse leakage current.
- Low forward voltage drop.
- High current capability.

Mechanical Data

Case	: JEDEC DO-27 moulded plastic.
Polarity	: Colour band denotes cathode.
Weight	: 0.04 oz, 1.1 g.
Mounting position	: Any.

Maximum Ratings and Electrical Characteristics

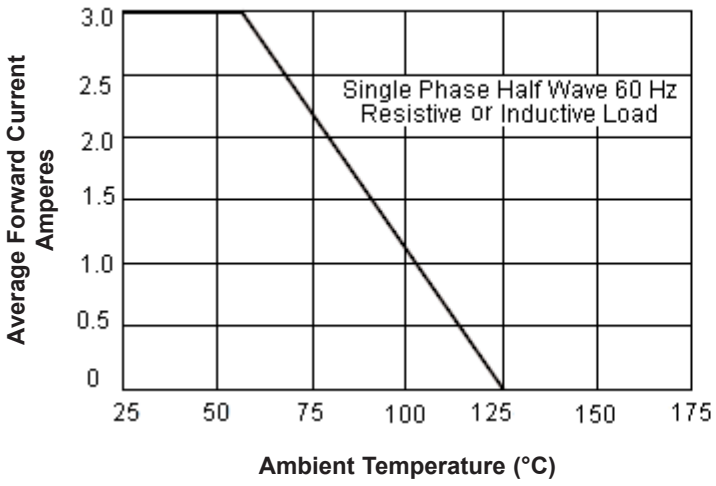
Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave ,60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	UF3001	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	V
Maximum RMS Voltage	V_{RMS}	35	
Maximum DC Blocking Voltage	V_{DC}	50	
Maximum Average Forward Rectified Current at T_A = 55°C	$I_{(AV)}$	3	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	125	
Peak Forward Voltage at 3 A dc	V_F	1	V
Maximum DC Reverse Current at T_J = 25°C Rated DC Blocking Voltage at T_J = 100°C	I_R	5 100	μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	50	nS
Typical Junction Capacitance (Note 2)	C_J		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20	°C/W
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{STG}	-55 to +150	

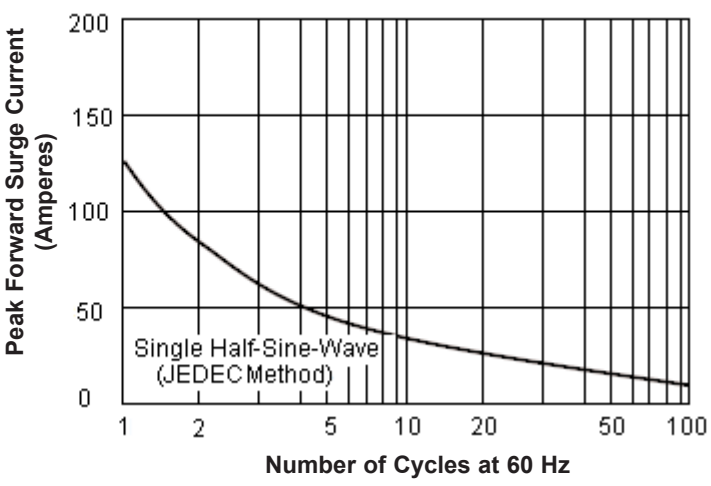
Notes : 1. Measured with I_F = 0.5 A, I_R = 1 A, I_{RR} = 0.25 A.
2. Measured at 1 MHz and applied reverse voltage of 4 V dc.
3. Thermal resistance junction to ambient.

Rating and Characteristics Curves

Forward Current Derating Curve

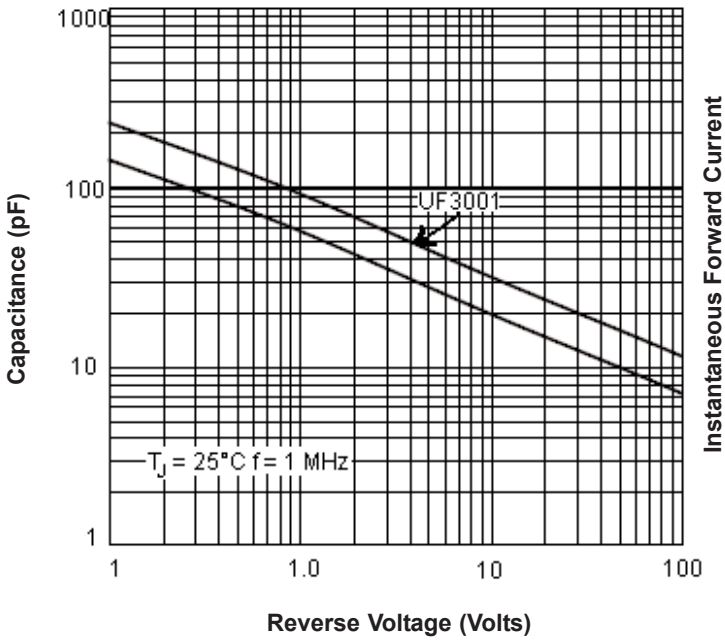


Maximum Non-Repetitive Surge Current



Rating and Characteristics Curves

Typical Junction Capacitance



Typical Forward Characteristics