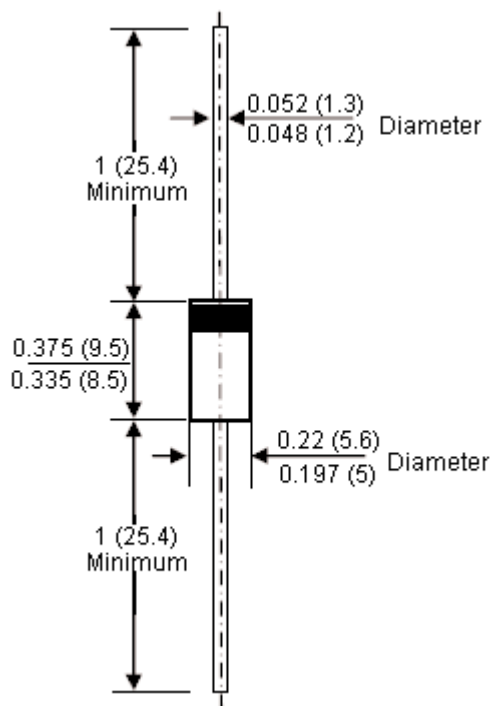


Ultra Fast Rectifier



Reverse Voltage - 400 V
Forward Current - 3 Amperes

DO - 27



Dimensions : Inches (Millimetres)

Mechanical Data

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

Features:

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

Ultra Fast Rectifier



Maximum Ratings and Electrical Characteristics

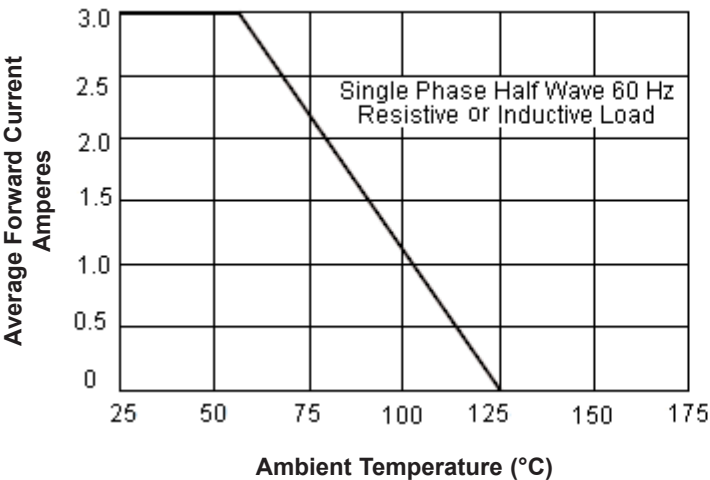
Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristics	Symbol	UF3005	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	
Maximum DC Blocking Voltage	V_{DC}	400	
Maximum Average Forward Rectified Current at $T_A = 55^{\circ}C$	$I_{(AV)}$	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	1.3	V
Maximum DC Reverse Current Rated DC Blocking Voltage	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	$^{\circ}C/W$
Operating Temperature Range	T_J	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	

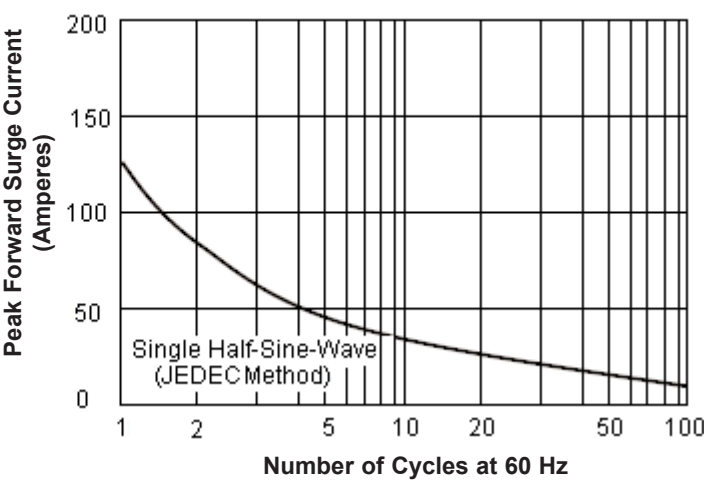
- Notes :
- 1. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$.
 - 2. Measured at 1 MHz and applied reverse voltage of 4 V dc.
 - 3. Thermal resistance junction to ambient.

Rating and Characteristics Curves

Forward Current Derating Curve



Maximum Non-Repetitive Surge Current

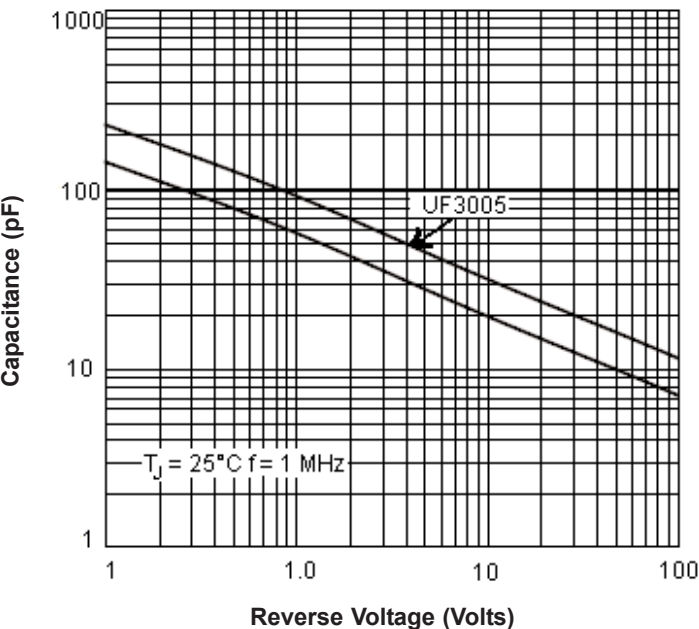


Ultra Fast Rectifier

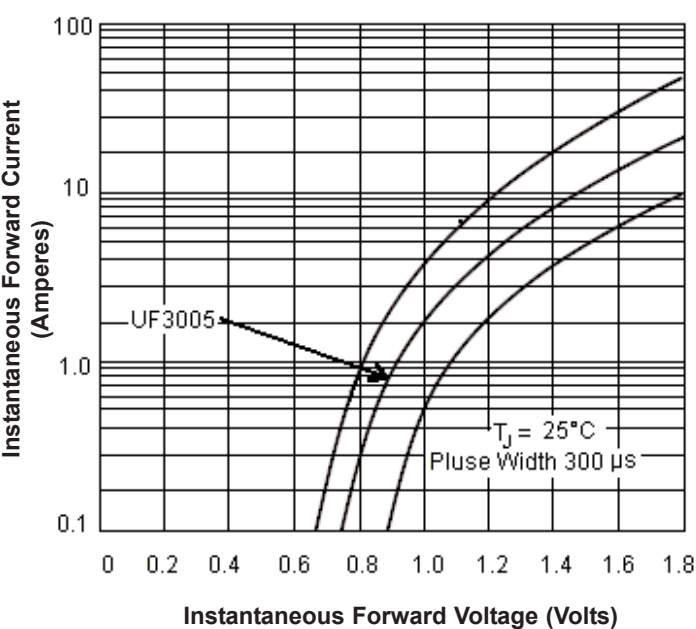


Rating and Characteristics Curves

Typical Junction Capacitance



Typical Forward Characteristics



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