

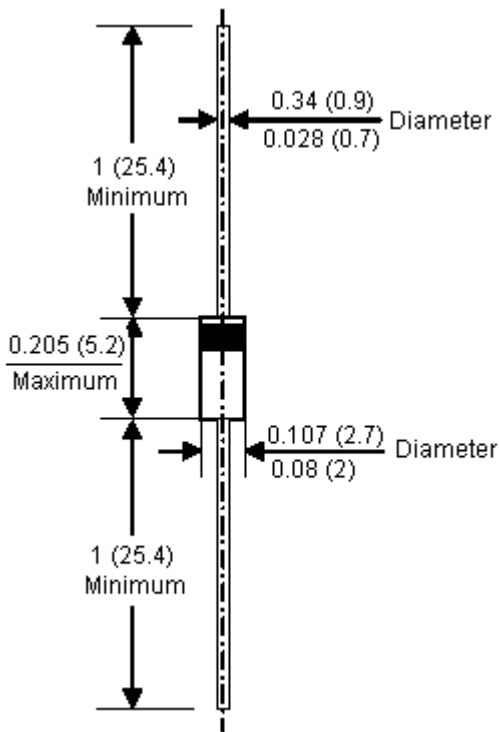


Features:

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

Reverse Voltage - 1,000 V
Forward Current - 1 Ampere

DO - 41



Dimensions : Inches (Millimetres)

Mechanical Data

Case	: JEDEC DO-41 moulded plastic.
Polarity	: Colour band denotes cathode.
Weight	: 0.012 oz, 0.34 g.
Mounting position	: Any.

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.

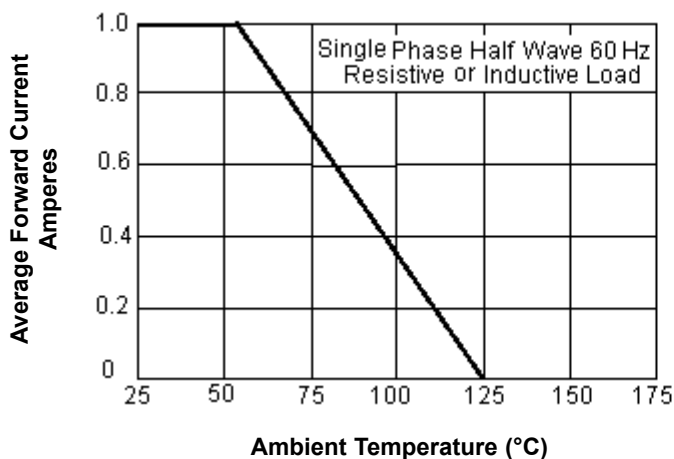
For capacitive load, derate current by 20%.

Characteristics	Symbol	UF4008	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1,000	V
Maximum RMS Voltage	V_{RMS}	700	
Maximum DC Blocking Voltage	V_{DC}	1,000	
Maximum Average Forward Rectified Current at $T_A = 55^\circ\text{C}$	$I_{(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	30	
Peak Forward Voltage at 1 A dc	V_F	1.7	V
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 100^\circ\text{C}$	I_R	5 100	μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	75	nS
Typical Junction Capacitance (Note 2)	C_J	10	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	25	$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	

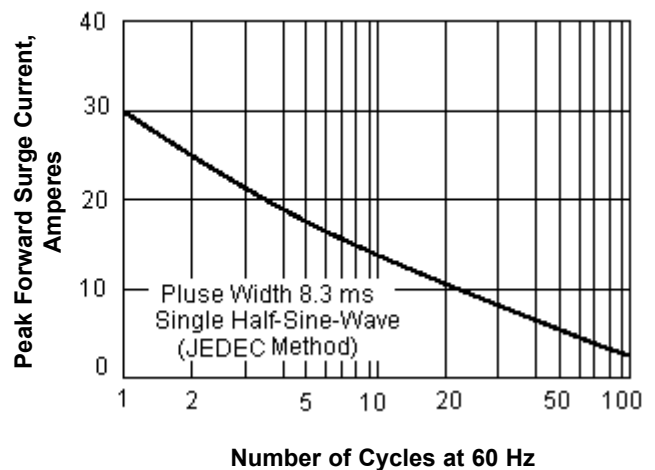
- Notes :**
1. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$.
 2. Measured at 1 MHz and applied reverse voltage of 4 V dc.
 3. Thermal resistance junction to ambient.

Rating and Characteristics Curves

Forward Current Derating Curve

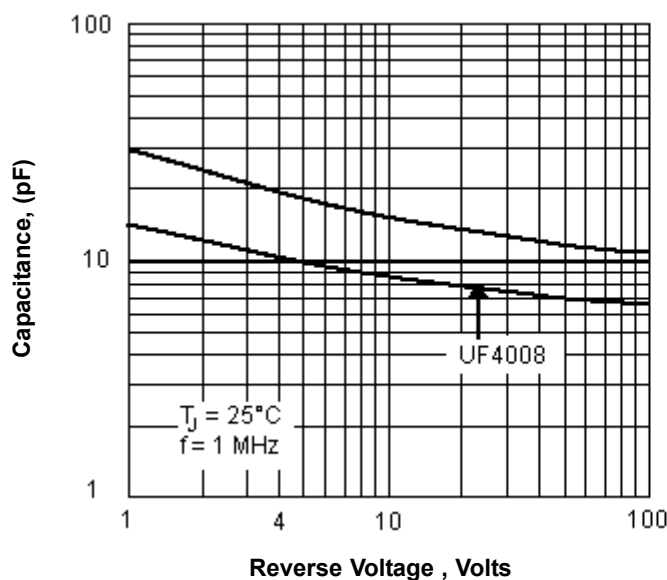


Maximum Non-Repetitive Surge Current

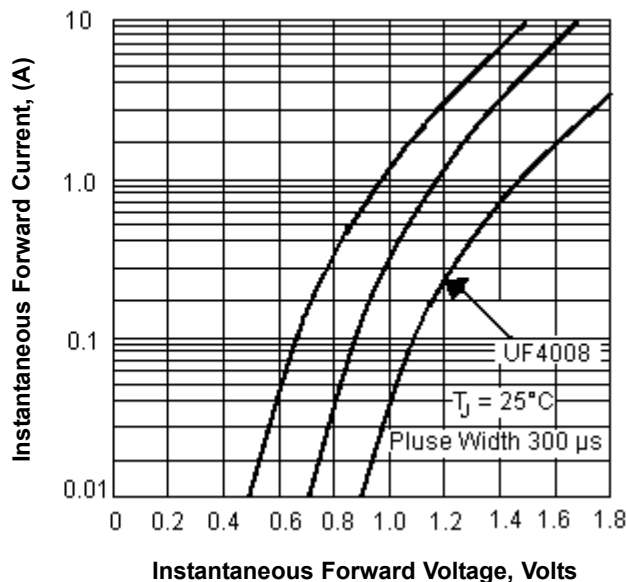


Rating and Characteristics Curves

Typical Junction Capacitance



Typical Forward Characteristics



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