

Ultra Fast Rectifier

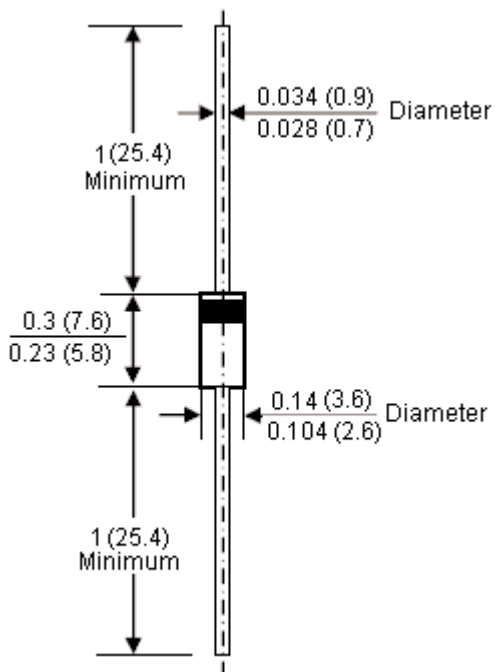


Features:

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

Reverse Voltage - 400 V
Forward Current - 2 Amperes

DO - 15



Dimensions : Inches (Millimetres)

Mechanical Data

Case : JEDEC DO-15 moulded plastic.
Polarity : Colour band denotes cathode.
Weight : 0.015 oz, 0.4 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.

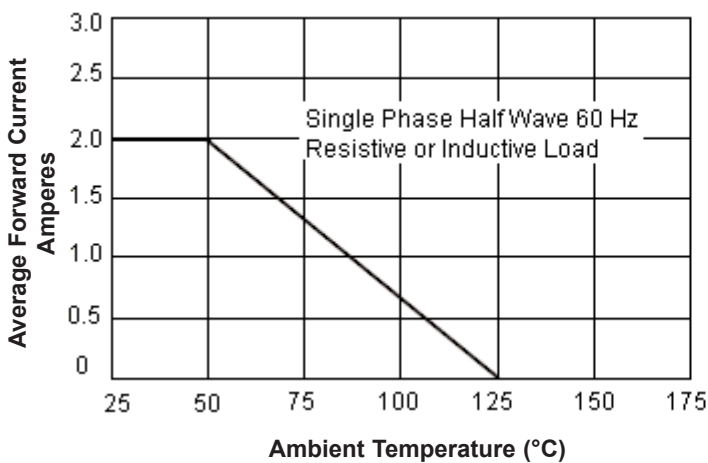
For capacitive load, derate current by 20%.

Characteristics	Symbol	UF2005	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 $T_A = 55^\circ\text{C}$	$I_{(AV)}$	2	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	60	
Peak Forward Voltage at 2 A dc (Note1)	V_F	1.3	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}	50	nS
Typical Junction Capacitance (Note 2)	C_J	50	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	

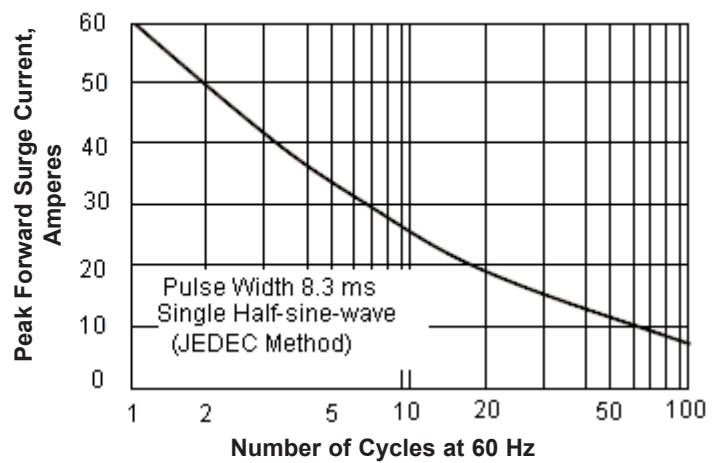
- Notes :**
1. Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$.
 2. Measured at 1 MHz and applied reverse voltage of 4 V dc.
 3. Thermal resistance junction to ambient.

Rating and Characteristics Curves

Forward Current Derating Curve

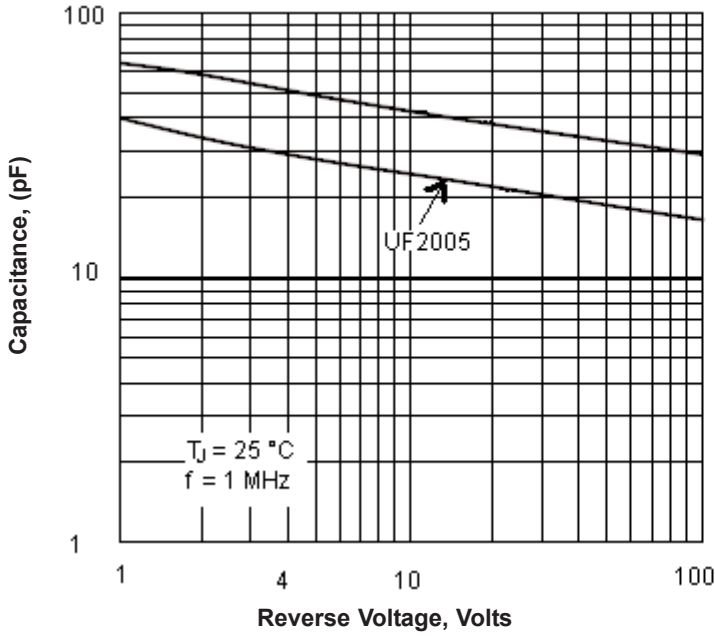


Maximum Non-Repetitive Surge Current

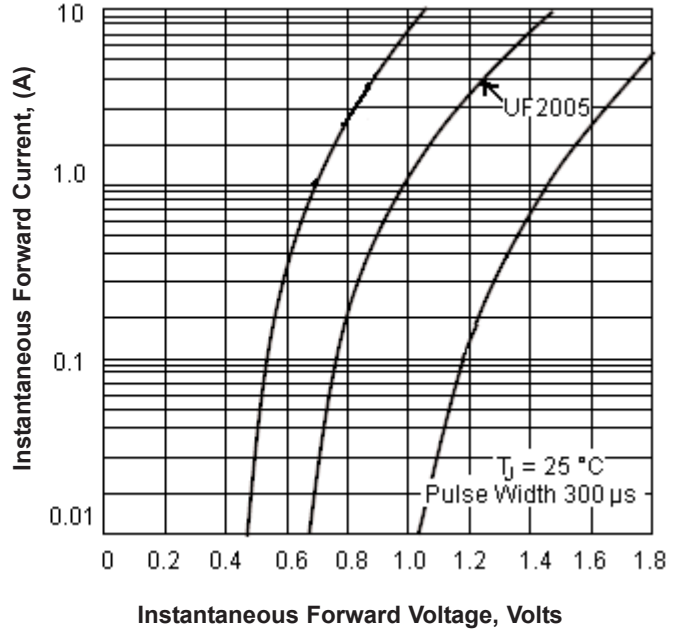


Rating and Characteristics Curves

Typical Junction Capacitance



Typical Forward Characteristics



Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2011.