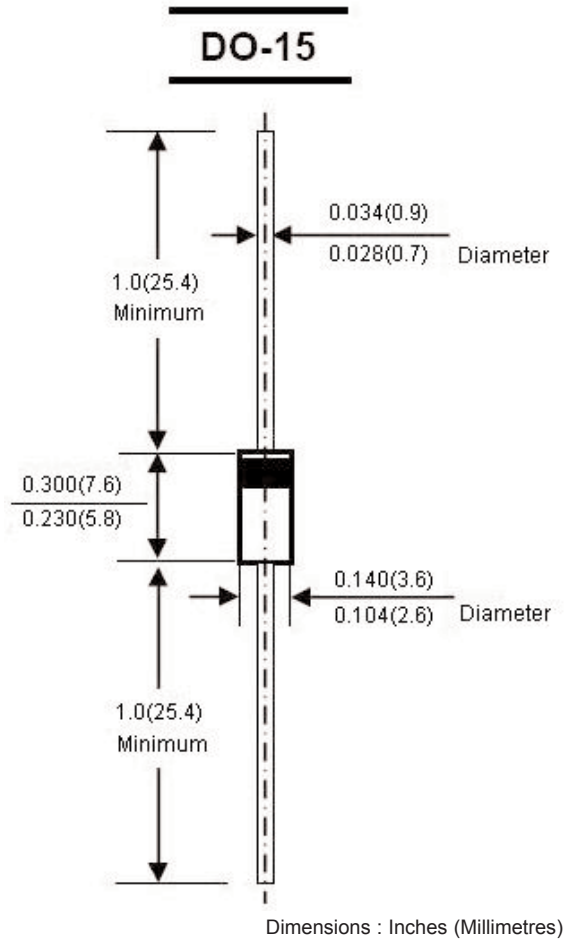


Ultra Fast Rectifiers



Reverse Voltage - 50 to 1,000 Volts and Forward Current - 2.0 Amperes



Features:

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

Mechanical Data:

Case : JEDEC DO-15 moulded plastic
Polarity : Colour band denotes cathode
Weight : 0.015 ounces, 0.4 grams
Mounting position : Any

Maximum Ratings and Electrical Characteristics:

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

<http://www.farnell.com>
<http://www.newark.com>
<http://www.cpc.co.uk>



Ultra Fast Rectifiers



Characteristics	Symbol	UF2001	UF2002	UF2003	UF2004	UF2005	UF2006	UF2007	UF2008	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Lengths @ $T_A=50^\circ\text{C}$	$I_{(AV)}$	2.0								A
BakelitePeak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	60								A
Peak Forward Voltage at 2.0A DC (Note 1)	V_F	1.0			1.3		1.7			V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	I_R					5.0 100			μA	
Maximum Reverse Recovery Time (Note 1)	T_{RR}	50					75			nS
Typical Junction Capacitance (Note1)	C_J	50					30			pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	25								$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +125								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

Notes:

1. Measured with $I_F=0.5\text{A}$, $C_{IR}=1\text{A}$, $C_{IRR}=0.25\text{A}$
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal resistance junction to ambient.

Rating and Characteristic Curves

Figure 1 - Forward Current Derating Curve

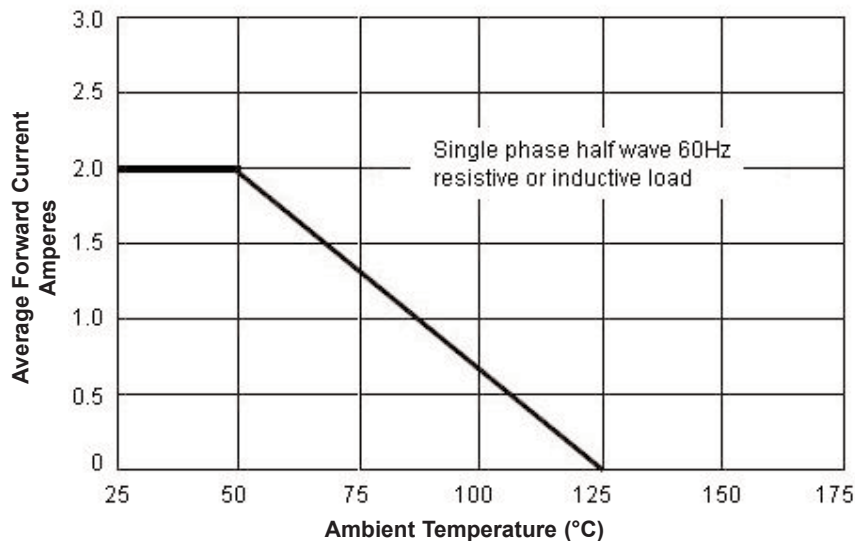


Figure 2 - Maximum Non-repetitive Surge Current

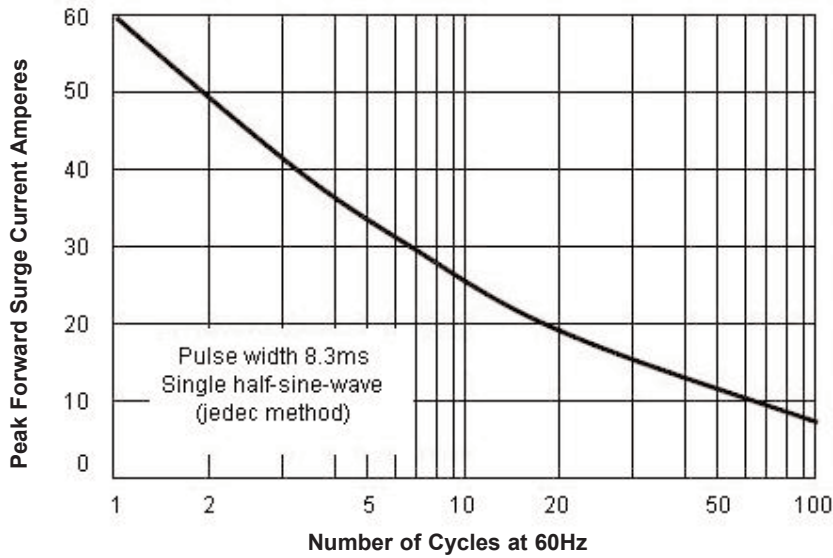


Figure 2 - Typical Junction Capacitance

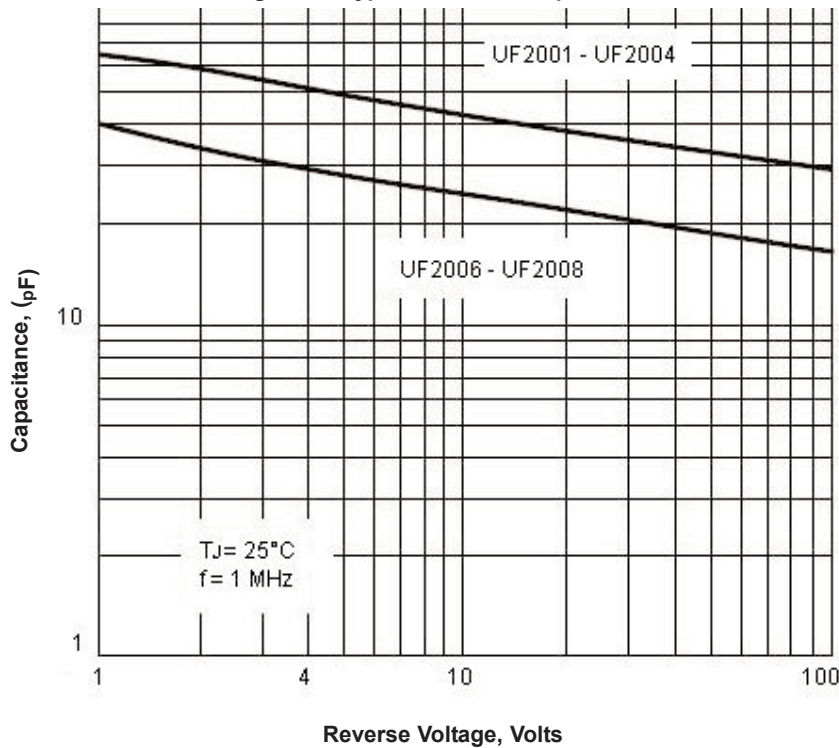
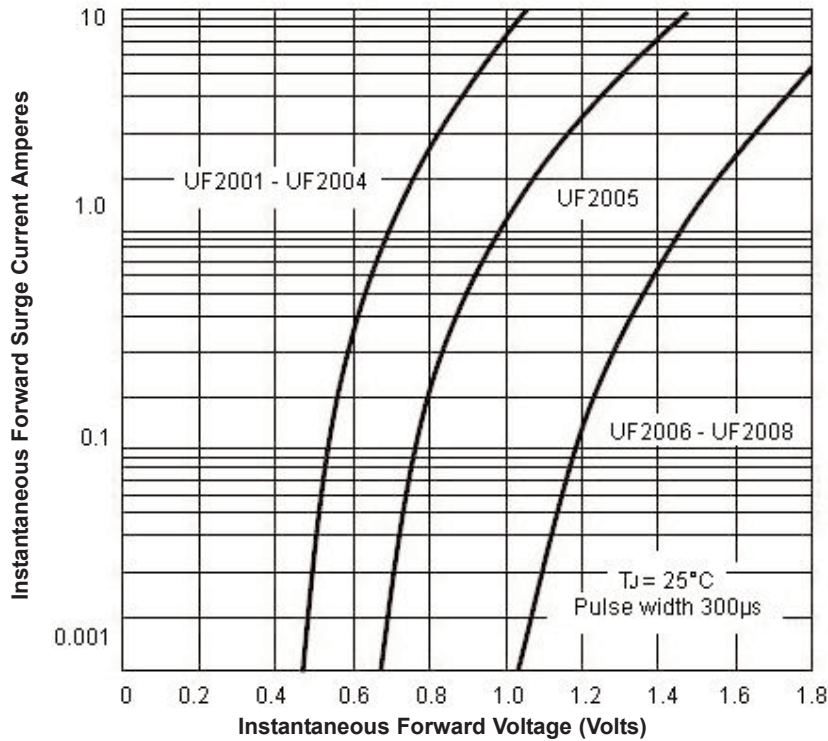


Figure 4 - Typical Forward Characteristics



Part Number Table

Description	Part Number
Ultra Fast Rectifiers	UF2001
Ultra Fast Rectifiers	UF2002
Ultra Fast Rectifiers	UF2003
Ultra Fast Rectifiers	UF2004
Ultra Fast Rectifiers	UF2005
Ultra Fast Rectifiers	UF2006
Ultra Fast Rectifiers	UF2007
Ultra Fast Rectifiers	UF2008

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