

# UF2001 THRU UF2008

## ULTRA FAST RECTIFIERS

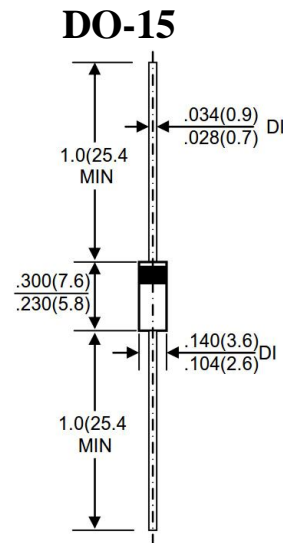
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 2.0 Ampere

### FEATURES

- ◆ Low cost
- ◆ Diffused junction
- ◆ Ultra fast switching for high efficiency
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0

### Mechanical Data

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



Dimensions in inches and (millimeters)

### 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%

	SYMBOL	UF 2001	UF 2002	UF 2003	UF 2004	UF 2005	UF 2006	UF 2007	UF 2008	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =50°C	I <sub>(AV)</sub>	2.0								Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	60								Amps
Peak Forward Voltage at 2.0A DC(Note1)	V <sub>F</sub>	1.0				1.3	1.7			Volts
Maximum DC Reverse Current T <sub>J</sub> =25°C at rated DC Blocking voltage T <sub>J</sub> =100°C	I <sub>R</sub>	5.0 100								μA
Maximum Reverse Recovery Time(Note 1)	T <sub>RR</sub>	50					75			nS
Typical Junction Capacitance (Note1)	C <sub>J</sub>	50					30			pF
Typical Thermal Resistance (Note2)	R <sub>θJA</sub>	25								°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150								°C

- Note:**
1. Measured with I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>RR</sub>=0.25A
  2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
  3. Thermal resistance junction to ambient

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### RATING AND CHARACTERISTIC CURVES UF2001 THRU UF2008

FIG. 1 - FORWARD CURRENT DERATING CURVE

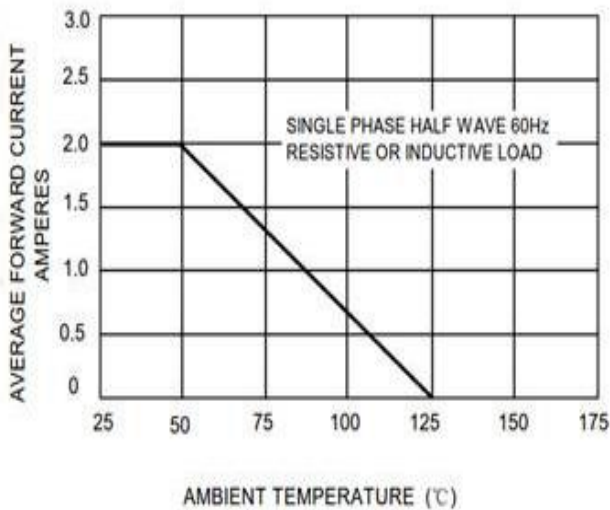


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

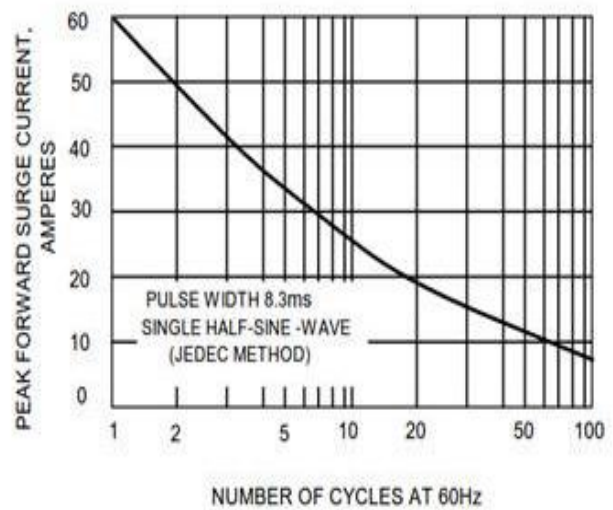


FIG.3 - TYPICAL JUNCTION CAPACITANCE

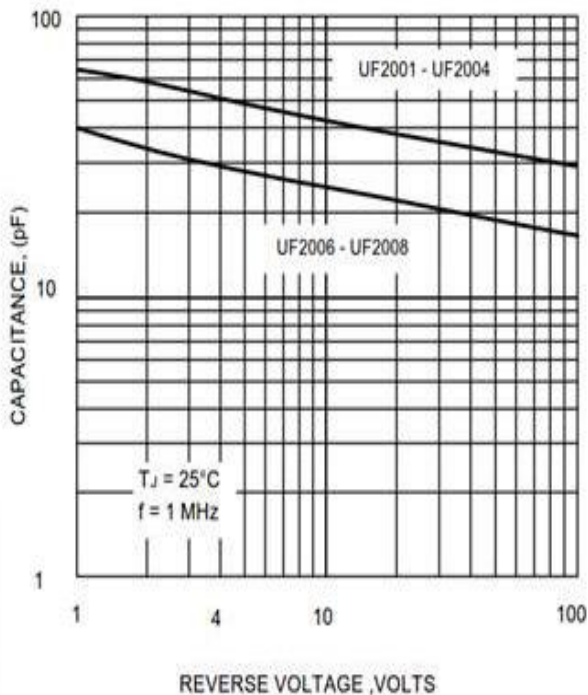
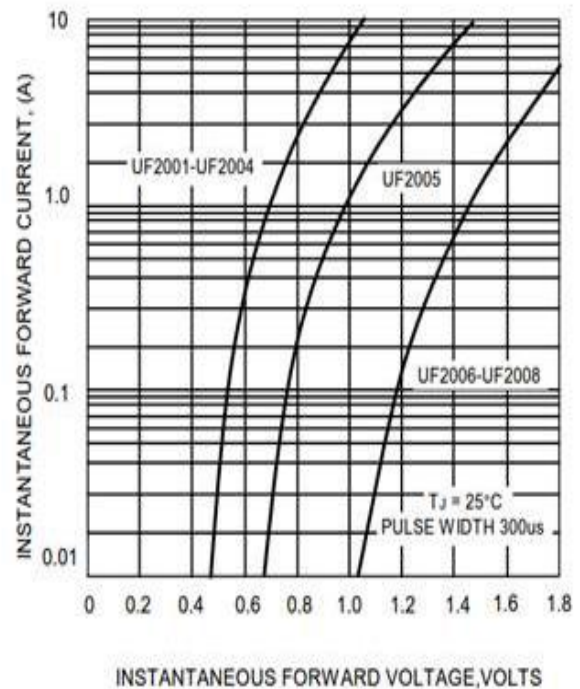


FIG.4-TYPICAL FORWARD CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.