



UF5001 - UF5008

ULTRA FAST RECTIFIER DIODES

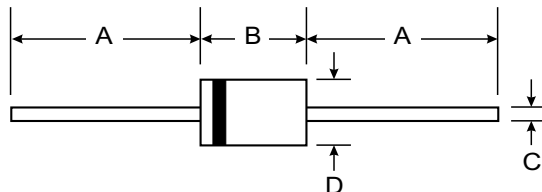
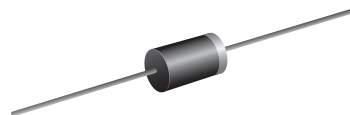
VOLTAGE RANGE: 50 - 1000V
CURRENT: 5.0 A

Features

- Diffused Junction
- Ultra-Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 150A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	UF5001	UF5002	UF5003	UF5004	UF5005	UF5006	UF5007	UF5008	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 @ T _A = 55 °C	I _(AV)	5.0								A	
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	200								A	
Peak Forward Voltage at 5.0A DC	V _F	1.0			1.3	1.7				V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _J =25°C @ T _J =100°C	I _R	5.0				100					uA
Maximum Reverse Recovery Time (Note1)	T _{RR}	50					75				nS
Typical Junction Capacitance (Note2)	C _J	75					50				pF
Typical Thermal Resistance (Note3)	R _{JA}	20								°C/W	
Operating Temperature Range	T _J	-50 to +125								°C	
Storage Temperature Range	T _{STG}	-50 to +150								°C	

NOTES: 1.Measured with I_F=0.5A, I_R=1A, I_{RR}=0.25A

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

3.Thermal resistance junction to ambient



FIG. 1 – TYPICAL FORWARD CURRENT DERATING CURVE

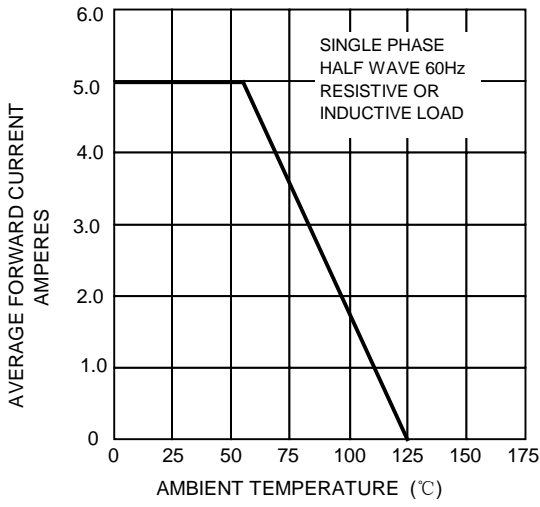


FIG. 2 – TYPICAL REVERSE CHARACTERISTICS

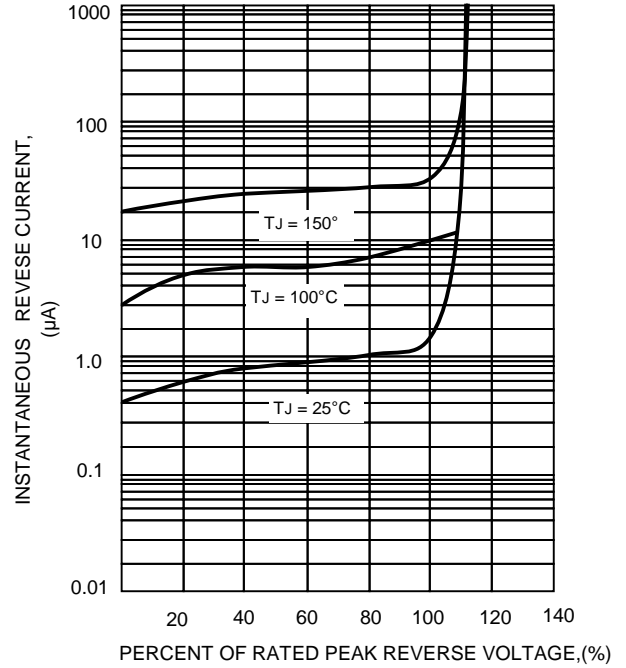


FIG. 4 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

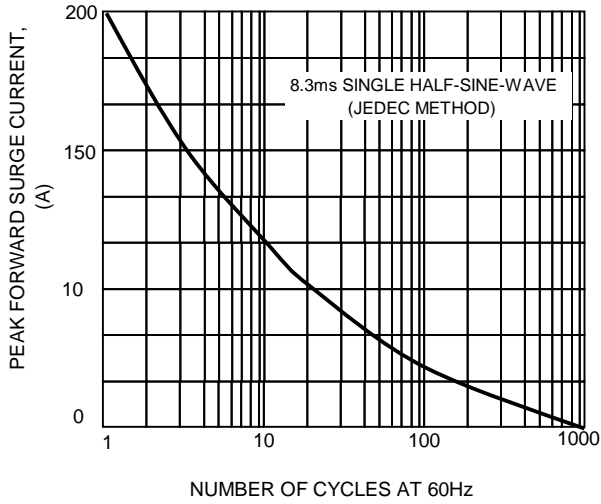


FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

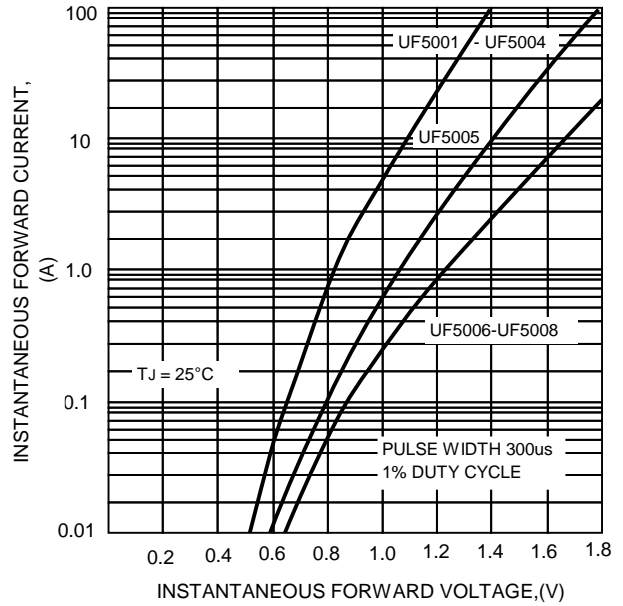


FIG. 5 – TYPICAL JUNCTION CAPACITANCE

