

## ULTRA FAST RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts  
FORWARD CURRENT - 1.0 Ampere

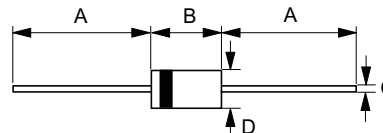
### FEATURES

- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon, Alcohol, Chloroethene and similar solvents
- Plastic material has UL flammability classification 94V-0

### MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

### DO-41



DO-41		
Dim.	Min.	Max.
A	25.4	-
B	4.20	5.20
C	0.70 $\varnothing$	0.90 $\varnothing$
D	2.00 $\varnothing$	2.70 $\varnothing$
All Dimensions in millimeter		

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

CHARACTERISTICS	SYMBOL	UF1001	UF1002	UF1003	UF1004	UF1005	UF1006	UF1007	UNIT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current @T <sub>A</sub> =55°C	I(AV)	1.0							A	
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A	
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	1.0		1.3		1.7			V	
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				100				uA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50				75				ns
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	20				10				pF
Typical Thermal Resistance (Note 3)	R <sub>θJA</sub>	40							°C/W	
Storage / Operating Temperature Range	T <sub>STG</sub> , T <sub>J</sub>	-55 to +150							°C	

NOTES : 1. Test condition of T<sub>RR</sub>: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.  
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3. Thermal Resistance Junction to Ambient.

**RATING AND CHARACTERISTIC CURVES**

