

## FEATURES

- | Plastic package has Underwriters Laboratory  
Flammability Classification 94V-O utilizing  
Flame Retardant Epoxy Molding Compound
- | Ultra Fast switching for high efficiency


**DO-41**

## MECHANICAL DATA

- | Case : Molded plastic body
- | Polarity: Band denotes cathode
- | Mounting Position : Any

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

## MAXIMUM RATINGS AND CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter	Symbol	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Unit
Marking		UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	
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	
Maximum Average Forward Current 0.375" (9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>F(AV)</sub>	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30							
Maximum Forward Voltage at I <sub>F</sub> =1 A	V <sub>F</sub>	1			1.3		1.7		V
Maximum DC reverse current at rated DC blocking voltage	T <sub>J</sub> =25°C	10							μA
	T <sub>J</sub> =100°C	500							
Typical Junction capacitance (Note 1)	C <sub>J</sub>					17			pF
Typical Thermal Resistance(Note 2)	R <sub>θJA</sub>					60			°C/W
Maximum Reverse Recovery Time (Note 3)	t <sub>rr</sub>	50				75			ns
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55~+150							°C

### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375" (9.5mm) P.C.B. mounted.
3. Reverse Recovery Time I<sub>F</sub>=0.5A, I<sub>R</sub>=1A, I<sub>rr</sub>=0.25A

# CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

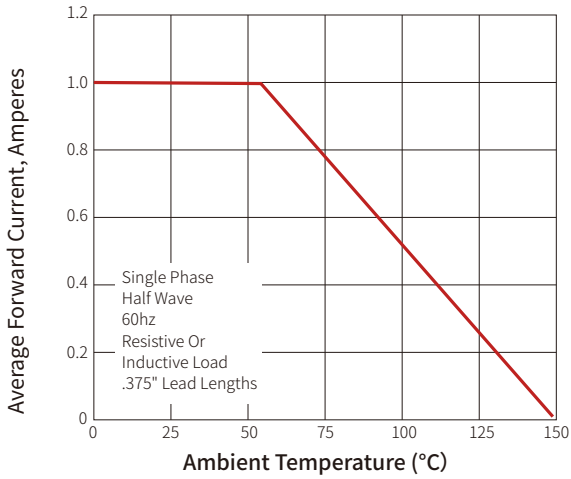


Fig.2 Peak Forward Surge Current

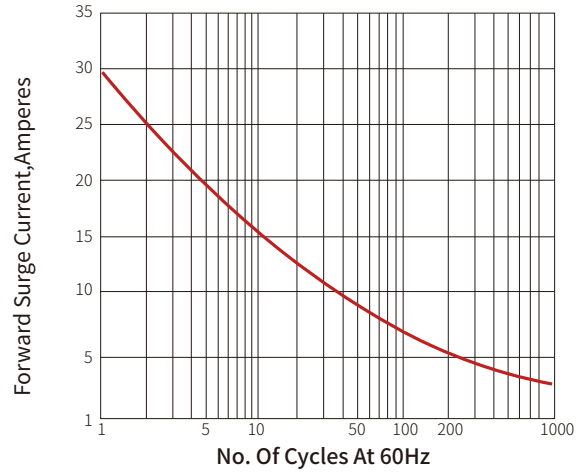


Fig.3 Forward Characteristics

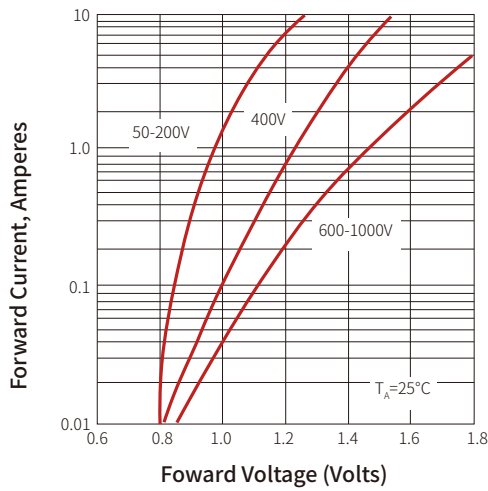
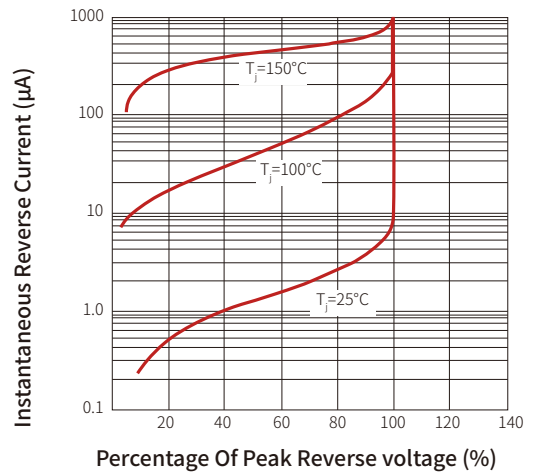
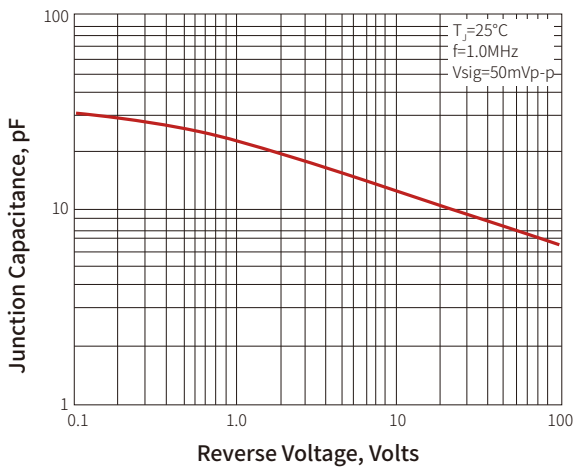
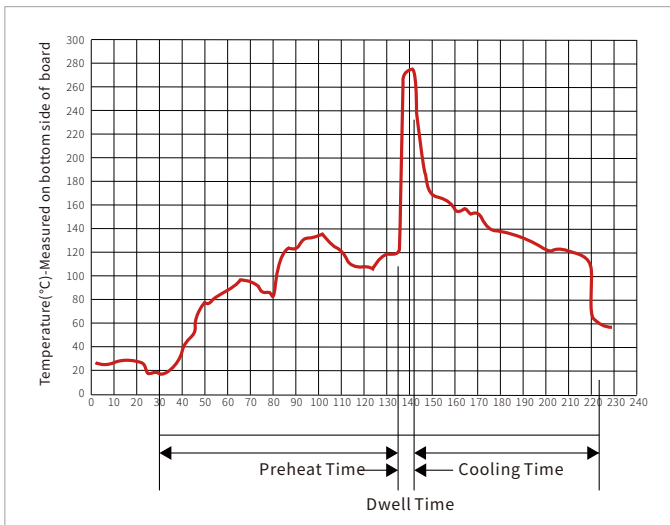


Fig.4 Typical Reverse Characteristics



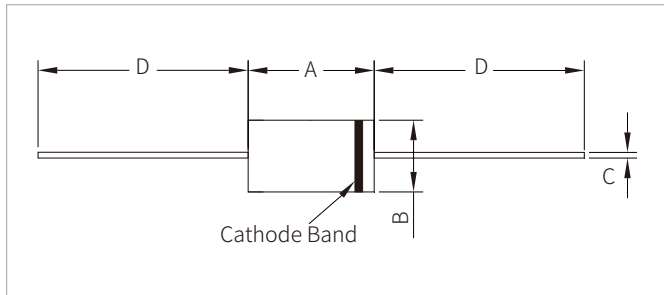
**Fig.5 Typical Junction Capacitance**


## WAVE SOLDERING



Wave Parameter		Lead-free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

## DO-41 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.10	5.20	0.160	0.205
B	2.00	2.70	0.080	0.107
C	0.71	0.86	0.028	0.034
D	25.40	-	1.000	-

## ORDERING INFORMATION

Part Number	Component Package	Per Carton	Description
UF4001-UF4007	DO-41	5000pcs	Box

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