

# 11DF3 - 11DF4

**PRV : 300 - 400 Volts**

**Io : 1.0 Ampere**

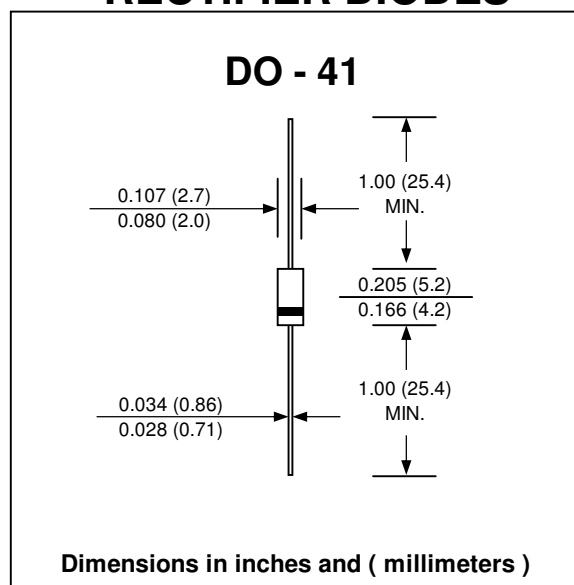
## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Superfast recovery time
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.339 gram

## ULTRA FAST RECTIFIER DIODES



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

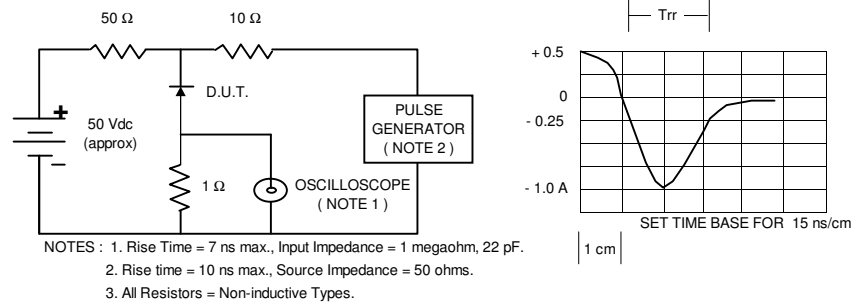
RATING	SYMBOL	11DF3	11DF4	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	300	400	V
Maximum RMS Voltage	V <sub>RMS</sub>	210	280	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	300	400	V
Maximum Average Forward Current Ta = 57 °C	I <sub>F(AV)</sub>	1.0		A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30		A
Maximum Peak Forward Voltage at I <sub>F</sub> = 1.0 A	V <sub>F</sub>	1.25		V
Maximum DC Reverse Current at V <sub>RRM</sub>	I <sub>R</sub>	10		μA
Maximum Reverse Recovery Time ( Note 1 )	T <sub>rr</sub>	35		ns
Junction Temperature Range	T <sub>J</sub>	- 65 to + 150		°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 150		°C

**Note:**

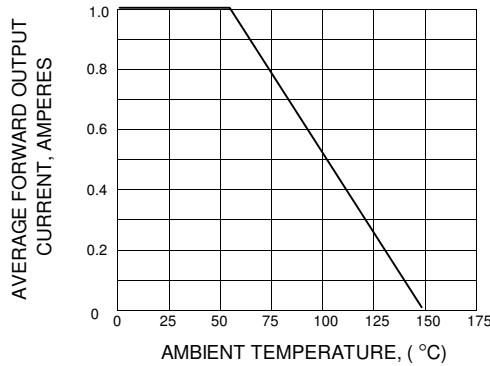
( 1 ) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5 A, I<sub>R</sub> = 1.0 A, I<sub>rr</sub> = 0.25 A.

## RATING AND CHARACTERISTIC CURVES ( 11DF3 - 11DF4 )

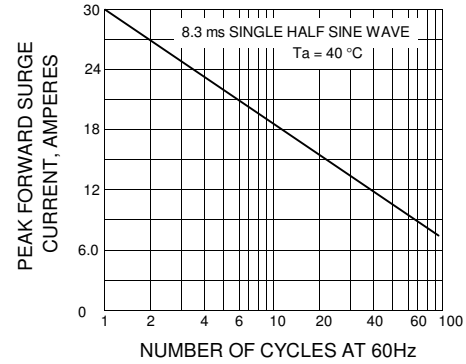
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



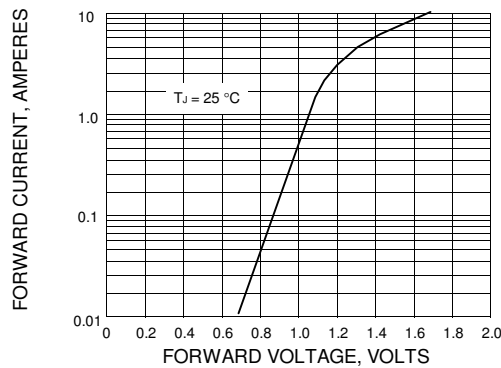
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

