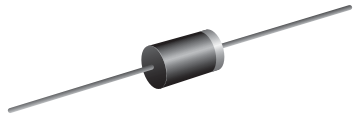
11DF3 - 11DF4

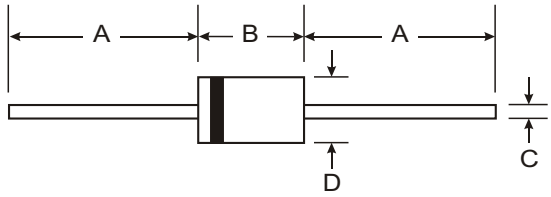
ULTRA FAST RECTIFIER DIODES

VOLTAGE RANGE: 300 - 400V
CURRENT: 1.0 A



Features

- Highcurrent capability
- Highsurgecurrent capability
- Highreliability
- Lowreversecurrent
- Low forwardvoltagedrop
- Superfast recovery time



Mechanical Data

- Case: D O - 4 1 , Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

RoHS COMPLIANT

DO-41		
Dim	**Min**	**Max**
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

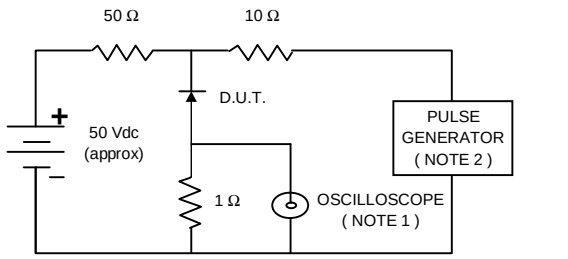
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	11DF3	11DF4	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	300	400	V
Maximum RMS Voltage	V_{RMS}	210	280	V
Maximum DC Blocking Voltage	V_{DC}	300	400	V
Maximum Average Forward Current Ta = 57 °C	$I_{F(AV)}$	1.0		A
Maximum Peak Forward Surge Current, 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30		A
Maximum Peak Forward Voltage at I_F = 1.0 A	V_F	1.25		V
Maximum DC Reverse Current at V_{RRM}	I_R	10		µA
Maximum Reverse Recovery Time (Note 1)	Trr	35		ns
Junction Temperature Range	T_J	- 65 to + 150		°C
Storage Temperature Range	T_{STG}	- 65 to + 150		°C

Note:

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, Irr = 0.25 A.

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



NOTES : 1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

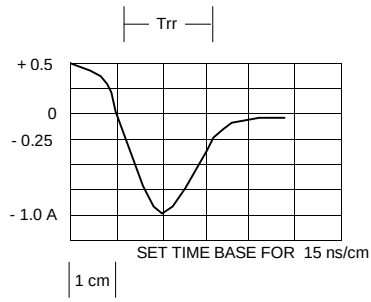


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

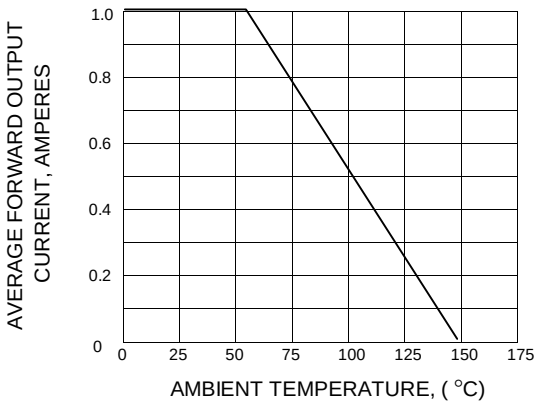


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

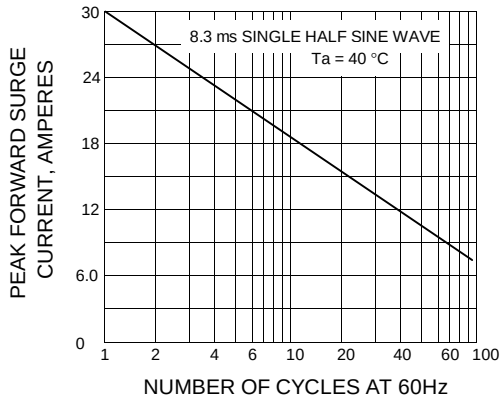


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

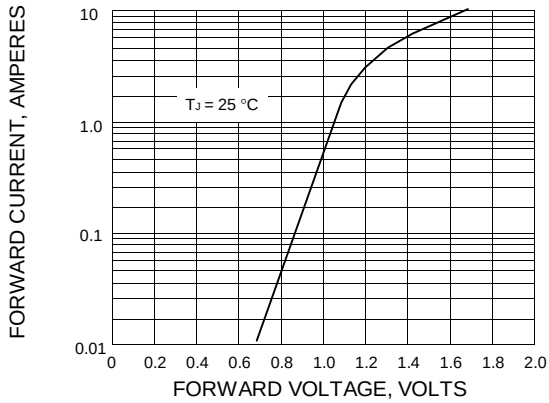


FIG.5 - TYPICAL REVERSE CHARACTERISTICS