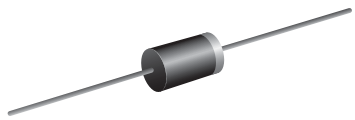
31DF1 - 31DF2

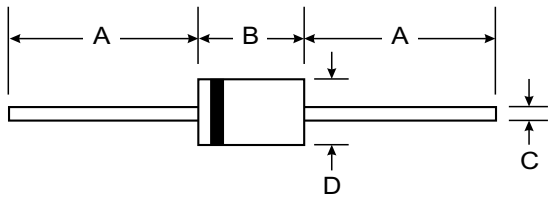
SUPER FAST RECTIFIER DIODES

VOLTAGE RANGE: 100 - 200V
CURRENT: 1.6 A



Features

- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol,Isopropanol and similar solvents



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		

Mechanical Data

- Case:DO--201AD,molded plastic
- Terminals: Axial lead ,solderable per MIL-STD202,method 208
- Polarity: Color band denotes cathode
- Weight: 0.041ounces,1.15 grams
- Mounting position: Any

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics

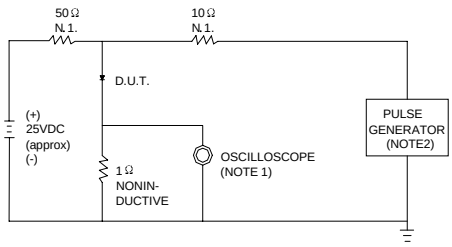
T_A = 25°C unless otherwise specified

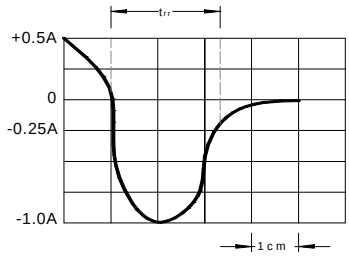
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	31DF1	31DF2	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	100	200	V
Maximum RMS voltage	V_{RMS}	70	140	V
Maximum DC blocking voltage	V_{DC}	100	200	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.6		A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	125.0		A
Maximum instantaneous forward voltage @ I_F=1.6A	V_F	0.98		V
Maximum reverse current @T_A=25℃	I_R	5.0		μA
at rated DC blocking voltage @T_A=100℃		50.0		
Maximum reverse recovery time (Note1)	t_{rr}	30		ns
Typical junction capacitance (Note2)	C_J	90		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	34		℃/W
Operating junction temperature range	T_J	- 55 ----- + 150		℃
Storage temperature range	T_{STG}	- 55 ----- + 150		℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1.0MH_Z and applied reverse voltage of 4.0V DC.
3. Thermal resistance from junction to ambient.

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





NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1MΩ. 22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

SET TIME BASE FOR 10 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

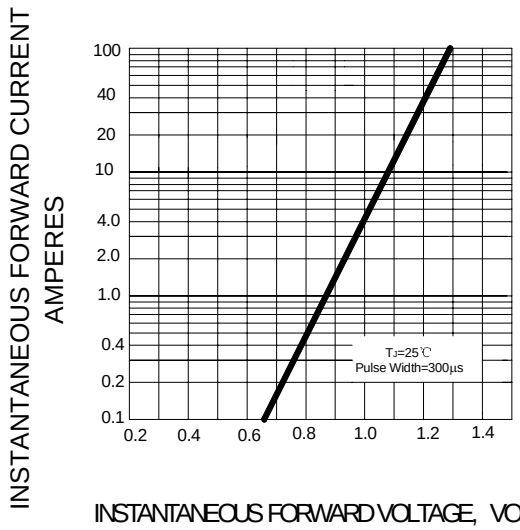


FIG.3 – FORWARD DERATING CURVE

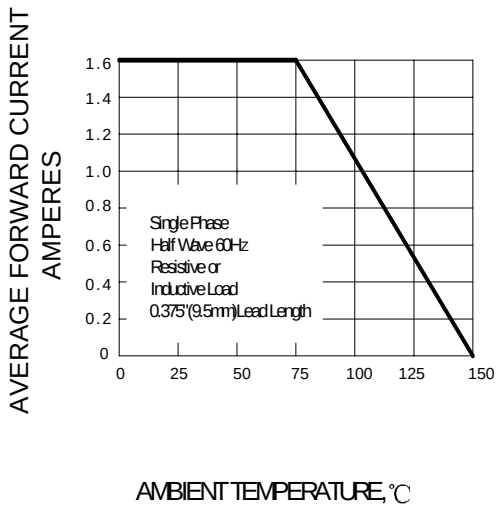


FIG.4– TYPICAL JUNCTION CAPACITANCE

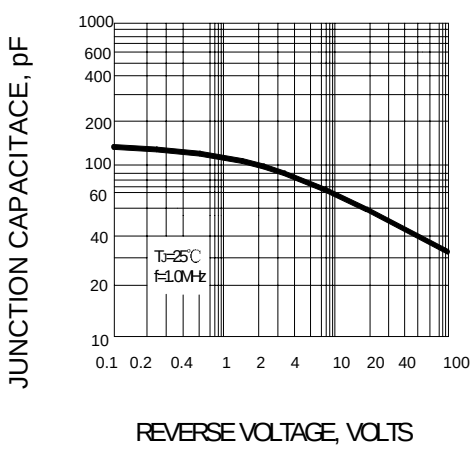


FIG.5– PEAK FORWORD SURGE CURRENT