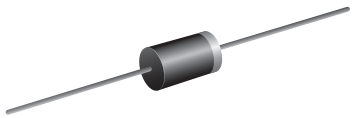
31DF6

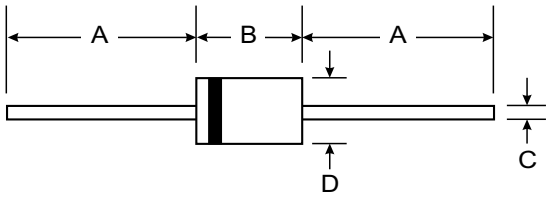
SUPER FAST RECTIFIER DIODES

VOLTAGE RANGE: 600V
CURRENT: 3.0 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%.

		31DF6	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0	A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	45.0	A
Maximum instantaneous forw ard voltage @ 3.0A	V_F	1.7	V
Maximum reverse current @T_A=25℃	I_R	20.0	μ A
at rated DC blocking voltage @T_A=100℃		100.0	
Maximum reverse recovery time (Note1)	t_{rr}	35	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 – FORWARD DERATING CURVE

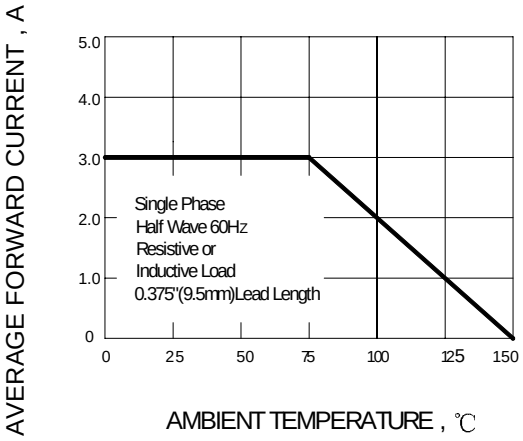


FIG.2 – PEAK FORWORD SURGE CURRENT

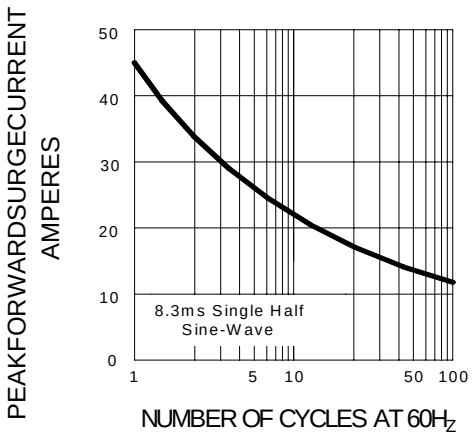


FIG.3 – TYPICAL FORWORD CHARACTERISTIC

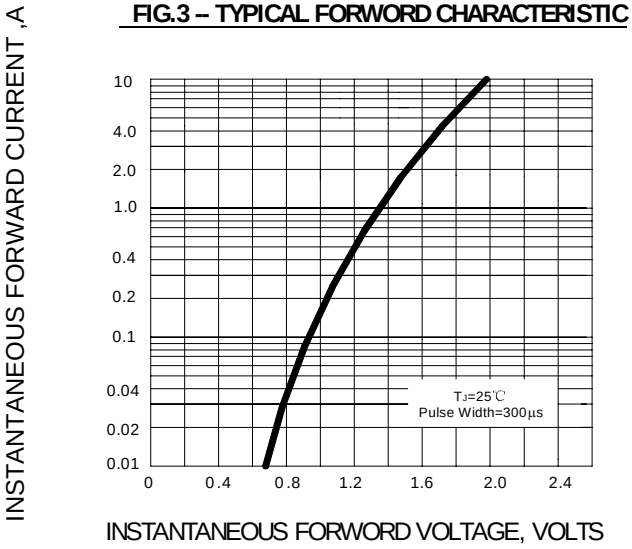


FIG.4–TYPICAL JUNCTION CAPACITANCE

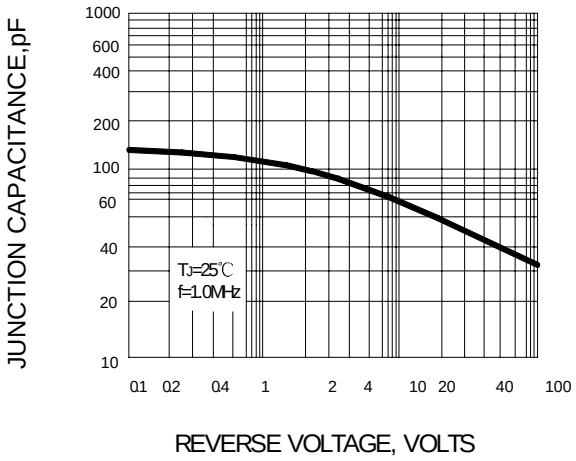


FIG.5–AVERAGE FORWARD POWER DISSIPATION