



31DF4 THRU 31DF6

3.0 AMPS. Ultra Fast Recovery Rectifiers

	Voltage Range 400 to 600 Volts Current 3.0 Amperes
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<p>Features</p> <ul style="list-style-type: none"> ✧ Low forward voltage drop ✧ Low power loss, high efficiency ✧ High current capability ✧ High reliability ✧ High surge current capability <p>Mechanical Data</p> <ul style="list-style-type: none"> ✧ Case: Molded plastic ✧ Epoxy: UL 94V-O rate flame retardant ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed ✧ Polarity: Color band denotes cathode end ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension ✧ Weight: 1.2 grams 	<p>DO-201AD</p> <p>Dimensions in inches and (millimeters)</p>
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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%

Type Number	Symbol	31DF4	31DF6	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	600	V
Maximum RMS Voltage	V_{RMS}	280	420	V
Maximum DC Blocking Voltage	V_{DC}	400	600	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @ $T_A = 29^\circ C$ (Note 1) @ $T_L = 109^\circ C$	$I_{(AV)}$	1.2 3.0		A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	45		A
Maximum Instantaneous Forward Voltage @ 3.0A	V_F	1.7		V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage	I_R	20		uA
Maximum Reverse Recovery Time (Note 3)	T_{rr}	35		nS
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	80		$^{\circ}C/W$
Operating Temperature Range	T_J	-40 to +150		$^{\circ}C$
Storage Temperature Range	T_{STG}	-40 to +150		$^{\circ}C$

- Notes: 1. Without Fin or P.C.Board..
 2. Thermal Resistance from Junction to Ambient .375"(9.5mm) Lead Length.
 3. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVES (31DF4 THRU 31DF6)

